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From Justice to Efficiency: On a Shift in the Normative Focus of Economics

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Abstract

The main hypothesis of this dissertation is that there has been a shift of focus in the history of economic thought: from normative questions, in particular the issue of justice, to the problem of efficiency; that is, optimisation in the sense of maximisation and minimisation under constraints.

This thesis pursues a relativistic approach, since it sees the nature of the economic science and the economic theory itself as culturally and historically embedded. Therefore, this analysis follows on the one hand a historical approach and on the other hand, it constitutes a methodological exploration, scrutinising the nature of economic science. So far, a comprehensive analysis of the shift from justice to efficiency is lacking in economics. Therefore, this dissertation fills a gap in the fields of economic methodology and the history of economic thought.

There are two main sections: The first section (chapters 3-4) deals with the concept of efficiency. In this context, chapter 3 discusses the historical development towards a focus on efficiency. Besides identifying this trend in the economic literature, several influences and reasons for it are discussed: especially the imitation of the methods of the natural sciences by economists, and the emergence of modern modes of production, for example in the course of the separation of household and firm. Chapter 4 analyses the concept of efficiency. It juxtaposes the three main aspects of efficiency to the three main functions of an economic system, namely: technical efficiency vs. ‘how’ to produce, distributive efficiency vs. ‘for whom’ to produce, and the efficiency of the output mix vs. ‘what to produce’. Subsequently, I discuss the role of the concept of efficiency in market economies and centrally planned economies.

In the section on justice, I begin with the reconstruction of the history of the concept of justice in chapter 5. Then, chapter 6 identifies several reasons for the disappearance of justice from the focus of economists. Again, the changing methodology of economics towards an adaption of methods from the natural sciences is of major significance. This phenomenon is closely connected to an emphasis on the scarcity postulate.

One might object that it is the utility functions of individuals that changed over time, rather than the individuals' tendency towards pursuing an optimum. This counterargument is addressed in chapter 2, in which I justify the relativistic approach underlying my dissertation.

As a result, I could identify the assumed shift of focus in the economic literature and put forth a range of reasons for this particular development, especially the imitation of the natural sciences and the stress on the scarcity postulate. I argue that the sole focus on efficiency constitutes an impoverishment of economics. This effect is even intensified by the 'outsourcing' of parts of economics into neighbouring disciplines, such as historical sciences, sociology, and political sciences. The ability of economics to make decisive contributions to complex real life problems is thereby impaired. In addition to the increasing use of mathematical, statistical, and econometric methods in economics, I argue for a new emphasis on the interpretive-, historical method, and on philosophical, and ethical approaches to economics.

Zusammenfassung

Die Kernthese der Arbeit lautet, dass sich im Zuge der Geschichte des ökonomischen Denkens eine Fokus-Verlagerung von einem Schwerpunkt auf normative Fragestellungen, insbesondere der Frage der Gerechtigkeit, hin zu einem Schwerpunkt auf Effizienz vollzogen hat.

Dabei verfolgt die Arbeit einen relativistischen Ansatz, indem sie das Wesen der ökonomischen Wissenschaft und auch die ökonomische Theorie selbst jeweils als in den kulturellen und zeitgeschichtlichen Kontext eingebettet versteht. Einerseits handelt es sich daher um eine theoriegeschichtliche Arbeit, andererseits wird aus methodologischer Sicht das Wesen der Volkswirtschaftslehre kritisch hinterfragt. Bisher existiert in der ökonomischen Literatur keine umfassende Analyse der Schwerpunktverlagerung von Gerechtigkeitsfragen zu Problemen der Effizienz. Somit füllt diese Arbeit eine Lücke sowohl in der methodologischen Diskussion, als auch in der Untersuchung der Geschichte des ökonomischen Denkens.

Die Dissertation ist in zwei Hauptabschnitte unterteilt. Im ersten Hauptabschnitt (Kapitel 3-4) wird das Konzept der Effizienz behandelt. Dabei betrachtet Kapitel 3 die historische Hinwendung zu Problemen der Optimierung im Sinne einer Maximierung oder Minimierung unter Nebenbedingungen. Hier wird eine Reihe von Gründen für diese Entwicklung aufgedeckt, insbesondere die Imitation der Naturwissenschaften durch die Ökonomik und zudem die Herausbildung moderner Produktionsverhältnisse durch beispielsweise die Trennung von Haushalt und Betrieb. Kapitel 4 analysiert den Effizienzbegriff näher und zieht eine Verbindung zwischen den drei Hauptaspekten der Effizienz und den drei Hauptfunktionen eines Wirtschaftssystems: technische Effizienz vs. die Frage, „wie“ zu produzieren ist, distributive Effizienz vs. die Frage, „für wen“ produziert werden soll und die Effizienz des Output-Mix vs. die Frage, „was“ produziert wird. Im Anschluss wird die Rolle der Effizienz in Marktwirtschaften ihrer Rolle in zentralverwalteten Systemen gegenübergestellt.

Im Abschnitt zur Gerechtigkeit (Kapitel 5-6) wird zunächst in Kapitel 5 die historische Entwicklung des Gerechtigkeitsbegriffes nachgezeichnet, um in Kapitel 6 Gründe zu präsentieren, die das Verschwinden der Gerechtigkeitsfrage aus dem ökonomischen

Blickfeld erklären können. Erneut ist dabei der Wandel der Methodologie hin zu quasinaturwissenschaftlichen Herangehensweisen von großer Bedeutung, wie die damit einhergehende Fokussierung auf den Grundtatbestand der Knappheit.

Dem Einwand, im Laufe der Geschichte habe sich lediglich die Nutzenfunktion der Individuen gewandelt und von einer zunehmenden Tendenz zur Optimierung könne daher nicht die Rede sein, wird eingangs in Kapitel 2 entgegnetreten. Hier wird ein relativistischer Ansatz für das weitere Vorgehen in der vorliegenden Dissertation begründet.

Als Ergebnis der Arbeit konnte die vermutete Schwerpunktverlagerung im ökonomischen Denken in der Literatur nachgewiesen werden. Zudem sind eine Reihe von Gründen für diese Entwicklung aufgedeckt worden, insbesondere die genannte Orientierung der Ökonomik an den Naturwissenschaften und der allgegenwärtige Bezug zum Knappheitsproblem. In dieser Entwicklung wird eine Verarmung der ökonomischen Wissenschaft gesehen, zumal sie mit einer Auslagerung verschiedener Teilbereiche in Nachbardisziplinen einhergeht, wie beispielsweise in die Geschichtswissenschaften, die Soziologie und die Politologie. Die Aussagefähigkeit der Ökonomik zu komplexen Fragestellungen ist dadurch gefährdet. Neben die ausgeprägte quantitative Analyse sollten wieder vermehrt qualitative Verfahren treten, wie die verstehende, historische Methode und philosophisch-ethische Betrachtungsweisen.

Preface

This doctoral thesis is part of the research project *Genese von Normen in der ökonomischen Wissenschaft*¹ in the context of the cluster of excellence *Normative Orders* in Frankfurt am Main. Originally my research topic was *Normative Implikationen der Allgemeinen Gleichgewichtstheorie*². Right from the start it became clear that one central part of general equilibrium theory and modern economics in general is maximisation and minimisation; that is, optimisation, under certain constraints. Is this simply an important part of the methodology of economics and as such value neutral or does the focus on efficiency itself convey normative implications? Furthermore, why and when did the economists' interest in optimisation originate?

Motivated by these questions, I wrote several research articles which constitute chapters 2-6 of this dissertation. In order to be able to present my ideas at several different conferences, the individual papers – and consequently the chapters of this thesis – are each self-contained, nevertheless they are all held together by a common thread.

I am very grateful to a number of people and institutions for their help in making this dissertation a successful project. First of all I would like to express my gratitude to Prof. Dr. Volker Caspari, my supervisor, for his guidance, encouragement, inspiration, and patience during my research. Also, I am no less indebted to Prof. Dr. Dres. h.c. Bertram Schefold, whose knowledge on the history of economic thought was like an inexhaustible gold-mine for my work.

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¹ Formation of norms in economic science.

² Normative implications of general equilibrium theory.

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List of Abbreviations & Variables

C	Capital
e.V.	<i>Eingetragener Verein</i> , registered association
F	Production function
I	Isoquant
L	Labour
max	Maximum, maximise
MC	Marginal cost
min	Minimum, minimise
MP_i	Marginal Product of factor i
MR	Marginal revenue
MRS	Marginal rate of substitution
MRT	Marginal rate of transformation
MRTS	Marginal rate of technical substitution
MU	Marginal utility
P	Prestige
p	Price
Q	Given output
q	Quantity
r	Rate of interest
S	Safety, stability
s_i	Distance
SW	Social welfare
T	Leisure time

U	Utility
w	Wage rate
x_i	Goods consumed
Y	Output
z	Input supply
$\hat{\alpha}$	Allocation
α_i	Reasons that can be traced back to a common denominator
β_i	Reasons that cannot be traced back to a common denominator
ε	Other utility-relevant factors
θ	Action to be explained
Λ	Land
π	Profit
π_{ω}^h	Probability of household h for state of the world ω
v^h	Utility level of household h
v_i	Speed
χ	Input
ω	State of the world
Ω	Sum total of all ω

1 Overview

This thesis pursues one central hypothesis: In the history of economic thought, there has been a shift of focus from questions about justice to those dealing with efficiency. I aim firstly, at tracing this development in the history of economic thought, and secondly, at identifying reasons for this particular trajectory that economics took.

Methodologically, my dissertation is therefore on the one hand a work of the history of economic thought and on the other hand a methodological investigation into the nature of economic science.

So far, a comprehensive analysis of my research question is missing in economic literature. However, there are a number of important contributions on the issue. Concerning the role of efficiency and justice in economics, one has to mention Joachim Hagel's *Effizienz und Gerechtigkeit*³, which offers a critical analysis of the concepts efficiency and justice in neoclassical welfare-economics. A historical analysis, however, is missing. In *Lohn- und Preisgerechtigkeit*⁴, Christian Hecker, on the other hand, discussed the development of concepts of justice with a particular focus, namely on protestant and catholic social ethics, and of the German Ordoliberalism. The systematic discussion of reasons for these developments, and an analogous examination of the concept of efficiency were, however, not part of Hecker's research program.

My own analysis certainly stands in the tradition of Max Weber's 'Protestant Ethic and the Spirit of Capitalism'⁵. Here, Weber found an increasing tendency towards instrumental rationality in human history. However, he was not entirely clear on this point. On the one hand, he identified an increasing striving for profit and rentability, on the other hand he assumed a general efficiency orientation to be universal.⁶ One reason for his

³ 'Efficiency and justice'. J. Hagel, *Effizienz und Gerechtigkeit*, Nomos, Baden-Baden, 1993.

⁴ 'Just wages and prices'. C. Hecker, *Lohn- und Preisgerechtigkeit: Historische Rückblicke und aktuelle Perspektiven unter besonderer Berücksichtigung der christlichen Soziallehren*, Metropolis, Marburg, 2008.

⁵ M. Weber, *Die protestantische Ethik und der Geist des Kapitalismus*, ed. by D. Kaesler, 3rd ed., C. H. Beck, Munich, 2010, first published 1904/05 as essays and 1920 as a monograph.

⁶ Cf. M. Weber, 'Vorbemerkung', in *Gesammelte Aufsätze zur Religionssoziologie*, Mohr Siebeck, Tübingen, 1920, p. 4.

rejection of a relativistic view of human rationality might be found in his focus on scarcity in the economic sphere.⁷

Methodologically, my approach to explanations in economics refers on the one hand to the philosophical work of Maurice Lagueux⁸, and on the other hand the historical, interpretive method⁹, going back to the Historical School, in particular the work of Werner Sombart¹⁰.

Many might question the use and necessity of methodological studies in economics. Carl Menger, for instance, stated that:

‘Only in one case, to be sure, do methodological investigations appear to be the most important, the most immediate and the most urgent thing that can be done for the development of a science. It may happen in a field of knowledge, for some reason or other, that accurate feeling for the goals of research coming from the nature of the subject matter has been lost. It may happen that an exaggerated or even decisive significance is attributed to secondary problems of the science. Erroneous methodological principles supported by powerful schools prevail completely and onesidedness judges all efforts in a field of knowledge. In a word, the progress of a science is blocked because erroneous methodological principles prevail. In this case, to be sure, clarification of methodological problems is the condition of any further progress, and with this the time has come when even those are obligated to enter the quarrel about methods who otherwise would have preferred to apply their powers to the solution of the distinctive problems of their science.’¹¹

Ironically, after over a century of scientific inquiry in the field of economics that followed Menger’s trajectory, his own statement seems to speak into the momentary situation, and reopens the discussion about the nature, scope, and method of economics.

With my dissertation ‘From Justice to Efficiency: On a Shift in the Normative Focus of Economics’, I try to fill a gap that still exists in economic literature. In doing this, my analysis also transcends Weber’s approach in certain respects, since firstly, I do not confine my argument by basing it on the scarcity postulate, secondly, I discuss several new factors that might have contributed to the focus on efficiency, and thirdly, I include as-

⁷ Cf. M. Weber, *Wirtschaft und Gesellschaft: Grundriß der verstehenden Soziologie*, 5th ed., Mohr Siebeck, Tübingen, 1972, p. 199.

⁸ In particular: M. Lagueux, *Rationality and explanation in economics*, Routledge, Abingdon, 2010.

⁹ *Verstehende Methode*.

¹⁰ Cf. B. Schefold, ‘Werner Sombart: Verstehende Nationalökonomie’, in *Die Zeit*, 23 April 1993, p. 30, or cf. e.g. W. Sombart, *Der moderne Kapitalismus I*, Duncker & Humblot, Leipzig, 1902.

pects from the history of economic thought into my argument, in addition to general history. Obviously, since I am writing more than one hundred years after Weber, I can include aspects that Weber did not know about. Finally, I combine the analysis of the development of economic thought regarding efficiency with the analysis of contemplation on justice, which Weber did not do as well.

This thesis consists of two major sections: Section one focuses on the concept of efficiency, while section two is centred on the concept of justice. In section one, chapter 3 ‘On the Historicity and Normativity of Efficiency’, discusses whether the concept of efficiency should be perceived as a law of nature, or a value neutral methodological element of economics or whether it is rather a normative concept. Furthermore, it examines several influences and developments that contributed to economics’ focus on efficiency.

Chapter 4 ‘Aspects of Efficiency: The Role of the Economic System’ scrutinises the term ‘efficiency’. Here, I present a number of different aspects of what ‘efficiency’ means, and compare the role of efficiency in market- and centrally-planned economies.

Section two, regarding justice, begins with chapter 5 ‘The Concept of Justice in the History of Economic Thought’. The purpose of this chapter is equivalent to chapter 4, by clarifying what is meant by ‘justice’. Since, of course, this cannot be done analytically, this chapter provides an overview of what economists have written about justice.

Finally, the purpose of chapter 6 ‘Remembrance of Concepts Past: Why Justice no longer seems to be relevant in Mainstream Economics?’ is equivalent to chapter 3. Whereas in chapter 3 the main question is, what factors might have contributed to the emergence of the focus on efficiency, chapter 6 asks, which factors played a role in the disappearance of the concept of justice from the focus of economics.

Generally, my argument assumes that in the history of thought, there has indeed been a shift in the thought, the actions, and the self-conception of man. The hypothesis that

¹¹ C. Menger, *Investigations into the method of the social sciences*, New York University Press, New York & London, 1985, first published in 1883 as ‘Untersuchungen über die Methode der Socialwissenschaften und der Politischen Oekonomie insbesondere’, p. 27.

humans act in order to maximise an individual utility function is relatively new. My argument that the utility maximisation hypothesis is a poor approximation of behaviour in pre-modern societies (and that it is doubtful whether it is a good approximation of modern societies) has often been criticised during the time of my research. To respond to this criticism, the two main sections of this dissertation are preceded by an introductory chapter 2 ‘Developing a Relativistic Approach to Economics’, in which I justify the method of my dissertation. The concept of efficiency consequently is the *explanandum* of my analysis, not the *explanans*.¹² This relativistic approach permits a change of thought and behaviour such as an increasing efficiency orientation. Also, the method hints at a historical and interpretive approach, which is reflected in the rest of my dissertation.

I conclude with a summary of the results and an outlook for future research.

¹² B. Schefold, ‘Max Webers “Protestantische Ethik“ als Hinterfragung der Ökonomie’, in B. Schefold, *Beiträge zur ökonomischen Dogmengeschichte*, ed. by V. Caspari, Wirtschaft und Finanzen, Düsseldorf, 2004, p. 451.

‘Im Reich der Zwecke hat alles entweder einen Preis, oder eine Würde. Was einen Preis hat, an dessen Stelle kann auch etwas anderes, als Äquivalent, gesetzt werden; was dagegen über allen Preis erhaben ist, mithin kein Äquivalent verstattet, das hat eine Würde . . . das aber, was die Bedingungen ausmacht, unter der allein etwas Zweck an sich selbst sein kann, hat nicht bloß einen relativen Wert, d.i. einen Preis, sondern einen innern Wert, d.i. Würde.’¹³

2 Developing a Relativistic Approach to Economics

2.1 Introduction

‘Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.’¹⁴ Founded on this famous definition of economics by Lionel Robbins, economic explanations of human actions are based on the utility maximisation postulate, according to which individuals act in a way that aims at a maximum of utility given scarce resources.

Chapter 2.2 elaborates on the neoclassical utility maximisation approach. It identifies and discusses a number of problems that it cannot deal with. In particular if utility maximisation is formulated as a non-falsifiable, ex-post construction, the validity of the utility maximisation approach is doubtful.

In contrast to the neoclassical theory of action, this thesis argues in favour of a relativistic approach which focuses on identifying and understanding the various motives for action. In order to justify this relativistic approach, chapter 2.3 examines the nature of

¹³ I. Kant, *Grundlegung zur Metaphysik der Sitten*, ed. by W. Weischedel, Suhrkamp, Frankfurt am Main, 1974, first published 1785, p. 68. ‘In the kingdom of ends everything has either a price or a dignity. What has a price can be replaced by something else as its equivalent; what on the other hand is raised above all price and therefore admits of no equivalent has a dignity. . . . but that which constitutes the condition under which alone something can be an end in itself has not merely a relative worth, that is, a price, but an inner worth, that is, dignity.’ I. Kant, *Groundwork of the metaphysics of morals*, translation M. Gregor, Cambridge University Press, Cambridge UK, 2005, reprint of 1st ed. 1998, p. 42.

explanations in economics. Some of the questions dealt with are: What does it mean to explain something? What is the role of rationality? How can rationality be defined, and what is an action?

In chapter 2.4, economic explanations based on the utility maximisation approach are contrasted with a more comprehensive theory of actions for economics. Chapter 2.5 draws some conclusions and provides an outlook to adjacent research questions.

As a result, the operator ‘max’ in front of the neoclassical utility function appears as an *explanandum* rather than the *explanans* of human actions, as has already been indicated in chapter 1. How human thought and action became preoccupied with a maximum or optimum – rather than for example a satisficing solution – will then be examined in chapter 3 ‘On the Historicity and Normativity of Efficiency’ from a history of economic thought perspective.

2.2 The Neoclassical Utility Maximisation Hypothesis

In order to understand the utility maximisation hypothesis, it is best to see it at work. Therefore, consider the following example of traditional potlatches:

A potlatch is a traditional festival that constitutes an important part of the cultures of the indigenous peoples of the American North-West Coast.¹⁵ Particularly in the past, Potlatches were held on many different occasions: weddings, funerals, inaugurations of new chiefs, etc. The central element of these feasts was the giving of gifts.¹⁶ The preparations for a potlatch could take several years and the host would give up most or even

¹⁴ L. Robbins, *An essay on the nature and significance of economic science*, 2nd ed., Macmillan, London, 1949, p. 16.

¹⁵ Cf. R. Gadacz, ‘Potlach’, in *The Canadian Encyclopedia*, retrieved 23 February 2012, <<http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1ARTA0006431>>.

¹⁶ Cf. K.-H. Kohl, *Ethnologie – Die Wissenschaft vom kulturell Fremden: Eine Einführung*, C. H. Beck, Munich, 1993, pp. 89-90.

all of his material wealth.¹⁷ Therefore, potlatches induced a form of wealth accumulation with the single aim of redistributing or even destroying the amassed goods.¹⁸

Indeed, in some cases, competitive forms of potlatches ended in the destruction of gifts and the host's property. As a form of ritualised gift-exchange, potlatches had to be reciprocated and therefore hosts tried to humiliate or even ruin their rivals by destroying large amounts of gifts and sometimes even by setting their own house on fire during their own potlatch. Guests had to repay the invitation¹⁹ and failing to do so meant that they would face subordination.²⁰

For the modern observer this tradition seems to represent an example of a clearly inefficient institution. But is it really? Potlatches are certainly not nonsensical but serve specific functions. By means of the ritualised gift exchange, hierarchical relations are determined inside of the indigenous society. To give is to show one's superiority, to accept but to fail to return the gift means subservience.²¹ A new chief needs to hold a potlatch and hence he must be able to accumulate a large amount of wealth. Is this not a desirable ability that qualifies a member of society for chieftainship? Is the potlatch-institution therefore efficient as a means of identifying potential candidates for the post of chief?

On the other hand, efficiency means to achieve a maximum output for a given input or to achieve a given output with a minimum of inputs. Is such an optimum realised by means of a potlatch? Should the accumulated wealth not rather be consumed jointly or, even better, be invested in order to increase future production?

2.2.1 Ubiquitous Maximisation

Mainstream economics sees every human action as rational in a utility maximising sense. This approach has been formulated in one of its most radical and therefore clear-

¹⁷ Cf. Kwakiutl Indian Band (ed.), *Potlach*, retrieved 23 February 2012, <<http://www.kwakiutl.bc.ca/culture/potlach.htm>>.

¹⁸ Cf. Kohl, pp. 89-90.

¹⁹ Cf. *ibid.*, pp. 89-90.

²⁰ Cf. M. Mauss, *The gift*, translation I. Cunnison, Cohen & West, London, 1966, originally in French 1923, p. 72.

est forms by Ludwig von Mises.²² The utility-maximising-principle allegedly operates in every culture, every period of history,²³ every economic system²⁴, and in every sphere of human life²⁵.

Similarly, the formation of institutions is supposed to be directed at efficiency. According to Douglass C. North, the decisive factor for the development of institutions are transaction costs.²⁶ The institutional framework is a product of the cultural inheritance and therefore path-dependent.²⁷ The further development of these institutions, however, leads to efficient outcomes, since all-prevailing scarcity ensures that only efficient institutions survive.²⁸

This approach is crucial for the formulation of a significant number of theoretical models in modern economics. Its empirical application, however, regularly hints at important limitations of the utility maximisation hypothesis. In particular, it is often not possible to incorporate nonmarket behaviour²⁹ convincingly into this framework. There are

²¹ Cf. Mauss, *The gift*, p. 72.

²² Cf. L. von Mises, *The ultimate foundation of economic science*, D. van Nostrand, New Jersey, 1962, pp. 76-7.

²³ Cf. L. von Mises, *Human action: A treatise on economics*, 4th ed., Fox & Wilkes, San Francisco, 1996, first published 1949, p. 66.

²⁴ Cf. D. North, *Structure and change in economic history*, Norton, New York, 1981, p. 4.

²⁵ Cf. G. S. Becker, *The economic approach to human behavior*, Chicago University Press, Chicago, 1976, e.g. p. 4.

²⁶ Cf. D. North, 'Economic performance through time', in *American Economic Review*, vol. 84, no. 3, 1994, p. 361.

²⁷ Cf. *ibid.*, p. 364.

²⁸ Cf. North, *Structure and change*, p. 7.

²⁹ The difference between market- and non-market transactions is often not explicitly defined in economic literature. In this context the distinction can best be understood in terms of an example: gift-exchanges vs. goods-exchanges. The latter aim at the satisfaction of material needs, and are therefore concerned with 'material provisioning' (cf. 'menschliche Unterhaltsfürsorge'. Sombart, p. 21). On the other hand, gift exchanges pursue different motives, for example fostering social bonds. Consequently, market transactions are transactions concerned with material provisioning/*menschliche Unterhaltsfürsorge*, whereas nonmarket transactions follow a different logic. Even authors such as Richard Posner implicitly refer to such a substantivistic/material concept of the market (cf. R. A. Posner, *The economics of justice*, Harvard University Press, Cambridge MA, 1983, pp. 1-2: 'Is it plausible to suppose that people are rational only or mainly when they are transacting in markets, and not when they are engaged in other activities of life, such as marriage and litigation a crime and discrimination and concealment of personal information? Or that only the inhabitants of modern Western (or Westernized) societies are rational? If rationality is not confined to explicit market transactions but is a general and dominant characteristic of social behavior, then the conceptual apparatus constructed by generations of economists to explain market behavior can be used to explain nonmarket behavior as well').

three main strategies to deal with shortcomings of the ‘maximisation-hypothesis’:³⁰ Firstly, one can see it as an approximation to reality. The idea of a utility-maximising *Homo Oeconomicus* would then be a purely theoretical construct, as a simplification of the complex reality, in order to analyse specifically economic problems, that is to say, actions in the market sphere.³¹ Secondly, one can evade the problems of the maximisation hypothesis in a Friedmanian way. According to this view, economics does not attempt to formulate realistic and testable models, but simply aims at hypotheses and theories that deliver good predictions.³² The third and most common way to deal with inadequacies of the basic utility maximisation approach is simply to extend the content of the utility function.³³ If observations do not fit the maximisation idea, ‘the calculation of benefits and costs that we employ is too limited’³⁴. To refer to our initial example of potlatch-festivals: An action that seems inefficient at first sight since it appears to be wasteful from an economic point of view, can be made to fit into the maximisation approach by including variables other than economic well-being into the utility function; for example power, leisure, prestige, etc. If the observed behaviour should still not fit into the utility maximisation framework, one can always refer to non-observable psychic costs which are supposed to explain the gap between observation and the expected behaviour.³⁵

In this manner, every human action can be interpreted as utility maximising in some way.³⁶ However, this strategy seems to follow the logic ‘if at first you don’t succeed,

³⁰ Cf. V. Vanberg, ‘The rationality postulate in economics: its ambiguity, its deficiency and its evolutionary alternative’, in: *Journal of Economic Methodology*, vol. 11, no. 1, 2004, pp. 8-9. Cf. chapter 2.2.3 for a discussion of the most important of these shortcomings.

³¹ Cf. K. Mathis et al., *Efficiency instead of justice?: Searching for the philosophical foundations of the economic analysis of law*, Springer, Dordrecht, 2009, p. 14.

³² Cf. Vanberg, p. 8.

³³ Cf. *ibid.*, p. 9.

³⁴ North, *Structure and change*, p. 46.

³⁵ Cf. Becker, *The economic approach*, p. 7: ‘When an apparently profitable opportunity to a firm, worker, or household is not exploited, the economic approach does not take refuge in assertions about irrationality, contentment with wealth already acquired, or convenient ad hoc shifts in values (i.e., preferences). Rather it postulates the existence of costs, monetary or psychic, of taking advantage of these opportunities that eliminate their profitability – costs that may not be easily ‘seen’ by outside observers.’

³⁶ Cf. H. Leibenstein, *Beyond economic man: A new foundation for microeconomics*, Harvard University Press, Cambridge MA, 1976, p. 8.

redefine success.³⁷ Also, to include all the relevant factors into the model would put it outside the neoclassical framework, since the focus on scarcity and its mathematical structure would need to be given up.³⁸

When economists discuss behaviour on markets, the utility maximisation hypothesis might often be very useful and lead to important insights. Since economics is developing more and more into a general science of human action, discussing all spheres of life – market- and non-market – a more comprehensive behavioural paradigm is needed.³⁹ I will give some hints on what such an approach might look like, later in this chapter.

2.2.2 Related Discourses

The fight over a positivistic or relativistic focus of economics has repeatedly been fought in the history of economic thought. In the first *Methodenstreit*⁴⁰ Carl Menger and Gustav Schmoller debated about the historical method in economics. According to Menger, scarcity⁴¹ and the exclusive focus on self-interest⁴² in economic matters are universal features of every economy and therefore the theoretical framework and the economist's toolbox would have to be universal as well.⁴³

³⁷ D. L. Everett, *Don't sleep, there are snakes: Life and language in the Amazonian jungle*, Pantheon, New York, 2008, p. 229.

³⁸ Cf. J. A. Elardo & A. Campbell, 'Choice and the substantivist/formalist debate: A formal presentation of three substantivist criticisms', in *Research in Economic Anthropology*, vol. 25, 2006, pp. 267-84. Cf. in particular chapter 2.2.3.4.

³⁹ Cf. Vanberg, p. 21.

⁴⁰ 'Dispute over method'.

⁴¹ Cf. K. Polanyi, *The livelihood of man*, ed. by H. W. Pearson, Academic Press, New York et al., 1977, p. 21.

⁴² Cf. M. Haller, 'Mixing economics and ethics: Carl Menger vs. Gustav von Schmoller', in *Social Science Information*, vol. 43, no. 5, 2004, p. 17, or cf. Menger, *Investigations*, pp. 82-9.

⁴³ Polanyi argued that later in his life, Menger seems to have doubted his former strong assertions. He did not authorise reprints or translations of the first edition of his *Principles* and worked on a revised version, which was published only posthumously. According to Polanyi, in this second edition, Menger was anxious to distinguish between exchange in market- and non-market economies. (Cf. Polanyi, *The livelihood*, p. 22). Polanyi regrets that this slight shift has been lost in the history of economic thought, since the second edition has never been translated into English and economists still refer to Menger's principles in its original version. However, in this second revised edition, published by his son, Karl Menger, appears only the distinction between a 'technical' and a 'formal' form of the economy ('technisch-ökonomische' vs. 'sparende Richtung der Wirtschaft'). Here, 'technical' stands for the production-sphere with the aim of satisfying certain needs, whereas 'formal' stands for economising actions under conditions of scarcity. Furthermore, the distinction between economic and non-economic exchange has already been there in the first edition of 1871. With this Menger meant only

Schmoller, on the other hand, criticised that positivistic economic laws were based on the ‘illusion of a stable original state’⁴⁴. Economic actions would not be universally directed at overcoming scarcity and would also not be exclusively self-interested. On the contrary, motives for economic actions are complex and built on values and norms.⁴⁵ Individuals are not continuously calculating maximisers but are bound by their cultural background.⁴⁶ Values and norms are rooted in a particular culture and vary with place and time. It follows that concepts of economic theory must also be relative to the cultural context. Schmoller can therefore count as a proponent of a cultural relativism,⁴⁷ as opposed to Menger’s economic universalism.

The same fundamental question re-emerged in the substantivist-formalist debate. Karl Polanyi, as the most prominent proponent of the substantivist position, distinguished between two meanings of the term ‘economic’:

‘The first meaning, the formal, springs from the logical character of the means-end relationship, as in economizing or economical; from this meaning springs the scarcity definition of economic. The second, the substantive meaning, points to the elemental fact that human beings, like all other living things, cannot exist for any length of time without a physical environment that sustains them; this is the origin of the substantive definition of economic.’⁴⁸

Polanyi maintained that the formalist approach is only appropriate for modern market economies and cannot be applied to primitive societies. In primitive economies, individual actions do not aim at a maximum of utility but are led by cultural and normative factors.⁴⁹

forms of exchange that are advantageous and those that are not. To conclude, there are no signs that Menger would have disavowed from his strong position, on the contrary, Karl Menger asserts in the introduction of the second edition that his father did not change his views in any fundamental issues between the publication of the first edition and his death in 1921 (C. Menger, *Grundsätze der Volkswirtschaftslehre*, Scientia Verlag, Aalen, 1968, reprint of the 2nd ed. of 1923).

⁴⁴ G. Schmoller, *Über einige Grundfragen der Socialpolitik und der Volkswirtschaftslehre*, Duncker & Humblot, Leipzig, 1898, p. 305 (‘Fiktion eines stabilen Urzustandes’).

⁴⁵ Cf. Haller, p. 8.

⁴⁶ Cf. H. H. Nau, ‘History Matters: From historical economics to modern institutionalism’, in H. H. Nau & B. Schefold (ed.), *The historicity of economics: Continuities and discontinuities of historical thought in 19th and 20th century economics*, Springer, Berlin, 2002, p. 6.

⁴⁷ Cf. Haller, p. 8.

⁴⁸ Polanyi, *The livelihood*, p. 19.

⁴⁹ Cf. K. Polanyi, ‘Anthropology and economic theory’, in F. Morton (ed.), in *Readings in anthropology*, 2nd ed., Thomas Cromwell Company, New York, 1968, as cited in J. Onorati, ‘Debating economic an-

The formalist approach, on the contrary, stated that choice between alternatives under conditions of scarcity is universal. Individuals economise everything in order to maximise their individual utility function: income, leisure time, power, friendship, love.⁵⁰ As a consequence, the tools of economics that deal with choice between substitutes can be applied to primitive economies just as well as to developed market economies.

Furthermore, there have been attempts towards a concept of ‘bounded rationality’. According to this view, individuals are not perfect utility maximisers but are content with a suboptimal solution.

Harvey Leibenstein, for instance, defined rationality as ‘calculatedness’. Complete rationality is a form of tight calculatedness, whereas selective rationality consists in loose calculatedness without necessarily being irrational.⁵¹ He then went on to define his own concept ‘X-inefficiency’ as ‘the degree to which actual output is less than maximum output (for given inputs)’.⁵²

Similarly, Herbert A. Simon wanted to replace ‘an optimality criterion by a satisficing criterion’.⁵³ Simon – as neoclassical economics – also starts with the basic assumption of pervasive scarcity,⁵⁴ however, he sees the agent limited in his capacities to actually determine a real maximum in all circumstances. Agents are satisfied with a ‘good’, rather than an ‘optimal’ solution.⁵⁵

Both Leibenstein’s ‘X-efficiency’ and Simon’s ‘Satisficing’-approach do not convincingly break out of the neoclassical ‘utility-maximising’ framework. What both authors do is to make the degree of optimality a variable of the utility function itself. Therefore they simply optimise the degree of optimisation and in the end must assume universal efficiency of behaviour just as well.

thropology within a primitive context’, in *Emory Endeavors Journal*, vol. 1, 2007, retrieved 23 February, 2012, <<http://history.emory.edu/home/assets/documents/endeavors/volume1/Joey.pdf>>, p. 4.

⁵⁰ Cf. Onorati, p. 2.

⁵¹ Cf. Leibenstein, pp. 73-7.

⁵² *Ibid.*, p. 95.

⁵³ H. A. Simon, ‘Rationality as process and as product of thought’, in: *American Economic Review*, vol. 68, no. 2, 1978, p. 12.

⁵⁴ Cf. *ibid.*, pp. 14-6.

⁵⁵ Cf. Lagueux, *Rationality and explanation*, p. 47.

Max Weber distinguished four types of rationality: Firstly, instrumental rationality as a means-ends-relationship. Secondly, value rationality as ethically, aesthetically, or religiously motivated actions not as means to some end but as ends in themselves. Thirdly, affectual rationality as in particular in emotionally motivated actions, and traditional rationality as actions according to custom and habit. Weber called these four types of rationality ‘ideal types’. Real world actions might be between the ideal types or a mélange of several forms.⁵⁶ Consequently, Weber maintained in contrast to mainstream economics that not all actions are utility maximising in an instrumental sense of rationality. Also, when he dealt with the formation and development of institutions, Weber saw irrational motives at work or at least motives that are no longer rational in a changing environment.

On the contrary, Douglass C. North and with him *New Institutional Economics* would hold that institutions are ‘efficient solutions to certain economic problems.’⁵⁷

Whereas the first *Methodenstreit* was mainly concerned with the role of the historical method in economics, the Substantivist-Formalist-Debate with the right approach to the economies of archaic societies, and whereas Leibenstein and Simon questioned but in the end failed to leave the neoclassical utility maximising approach, this chapter attempts to build on useful previous arguments in the struggle for a relativistic approach to economics, but to put it in a more general, non-maximising framework.

2.2.3 On Some Problems of the Utility Maximisation Framework

The endeavour to develop a theory of human action that can fit into a relativistic approach to economics needs to address a range of problems that the neoclassical utility maximisation hypothesis fails to incorporate.

⁵⁶ Cf. Weber, *Wirtschaft und Gesellschaft*, pp. 12-13. In the original: ‘zweckrational’, ‘wertrational’, ‘affektuell’, ‘traditional’.

⁵⁷ M. Granovetter, ‘Economic action and social structure: The problem of embeddedness’, in *American Journal of Sociology*, vol. 91, no. 3, 1985, p. 488, and cf. North, *Structure and change*, p. 7.

2.2.3.1 Scarcity

For instance, neoclassical theory is based on the assumption that all human action is a response to pervasive scarcity.⁵⁸ Since neoclassical theory restricts itself to the formal meaning of the term ‘economic’, situations of choice are always construed as decisions under conditions of insufficient means.⁵⁹ Even if one accepts this focus on choice, not all choices are subject to the same concept of scarcity. Operationally induced choice, for example, might be a choice between equally attractive alternatives, but nevertheless a choice needs to be made. Take the case of a crossroad: Turning left has the same advantages or disadvantages as turning right, but you still need to pick one route in order to reach your destination. In this situation choice without scarcity is involved. Likewise, an individual might be confronted by a choice between alternatives without scarcity in the case of moral choices. You decide to do something simply because you think that this is the right thing to do.⁶⁰

The issue of scarcity was already a topic of discussion in ancient Greece, but the authors were aware of the fact that firstly, scarcity is a relative, that is to say, a social and culturally dependent concept, and that secondly, there are different forms of scarcity that need to be treated differently.

Aristotle would say that animals ‘find their sustenance waiting for them’⁶¹. They do not need to produce and under normal conditions, their means for reproduction are available in abundance. Similarly, man finds his sustenance in the mother’s milk. He concludes that the focus on the insufficiency of means in the natural environment is a ‘demand side’ phenomenon and can only result as a misconception of the nature of the good life.⁶² Certainly then, scarcity is not a universal phenomenon but culturally relative.

As another example from Ancient Greece, Polanyi referred to the *agatha* as honorary gifts. These are rare and therefore scarce, but in a very different way. They are inherent

⁵⁸ Cf. e.g. Mises, *The ultimate foundation*, pp. 2-3.

⁵⁹ Cf. K. Polanyi, ‘The economy as instituted process’, in *Trade and market in the early empires: Economics in history and theory*, ed. by K. Polanyi et al., Free Press, New York, 1957, p. 243.

⁶⁰ Cf. Elardo & Campbell, pp. 273-77, or cf. Polanyi, ‘The economy as instituted process’.

⁶¹ K. Polanyi, ‘Aristotle discovers the economy’, in *Trade and market in the early empires: Economics in history and theory*, ed. by K. Polanyi et al., Free Press, New York, 1957, p. 81.

in rank and are rare just as there is only little space at the top of the pyramid. Contrary to simple economic goods like shoes, which can simply be produced in greater numbers in order to decrease their scarcity, the *agatha* would not be what they are if their number could arbitrarily be increased. Their scarcity is therefore a result of non-economic factors.⁶³

In neoclassical theory, the factors that enter one's utility function have to be substitutes. You can either increase your utility by consuming for 20 Euros more or instead you can enjoy one more hour of leisure time. The opportunity cost of one hour of leisure is then 20 Euros. Many motives of human action, like 'reputation' or the 'experience of friendship' are scarce in a different way. There is no trade-off between 'an experience of family togetherness' and the number of chewing gums consumed. In other words, there is no (Euro) price on family togetherness; I will come back to this point later on.⁶⁴

The absurdity of trying to subsume all motivations for human actions under one target function becomes even clearer in the case of a very particular 'scarce good': love. The reader does not have to be reminded that the supply of love might in fact increase through use and as a good it might not remain intact if it stays unused.⁶⁵ The attempt to fully understand how the 'marriage market' operates solely on grounds of the neoclassical utility maximisation approach is doomed to fail.⁶⁶

2.2.3.2 Individualistic Perspective

The utility maximisation approach is intrinsically individualistic; it is always individuals who maximise their utility.⁶⁷ The applicability to traditional societies is therefore limited, since in these societies actions are often performed by groups (clans, tribes, families) rather than individuals.⁶⁸ Margaret Mead gives a particularly illustrative ex-

⁶² Cf. Onorati, p. 81.

⁶³ Cf. *ibid.*, pp. 77-8.

⁶⁴ Cf. Elardo & Campbell, pp. 273-77.

⁶⁵ Cf. A. O. Hirschman, 'Against parsimony: Three ways of complicating some categories of economic discourse', in *American Economic Review*, vol. 72, no. 2, 1984, p. 93.

⁶⁶ Cf. chapter 3 for a further analysis of the concept of scarcity.

⁶⁷ Cf. E. Screpanti & S. Zamagni, *An outline of the history of economic thought*, Clarendon Press, Oxford, 1993, p. 148.

⁶⁸ Cf. Mauss, p. 3.

ample of the Arapesh of New Guinea, which shows how our modern view of agents as self-interested individuals is inappropriate for generalisations:

‘Coconut palms and betel palms are planted not on one’s own hereditary house site, but on the house sites of one’s brothers, one’s uncles, one’s brothers-in-law, one’s mother’s brothers, so that a man may often live many miles from most of his palm trees. . . . In the care of pigs, the same diffuse, scattered method is followed. People do not feed their own pigs, but give them to others to feed. . . . If there is meat on his smoking rack over the fire, it is either meat which was killed by another – a brother, a brother-in-law, a sister’s son, etc. – and has been given to him, in which case he and his family may eat it; or it is meat which he himself has killed and which he is smoking to give away to someone else, for to eat one’s own kill, even though it be only a small bird, is a crime to which only the morally – which usually means in Arapesh mentally – deficient will stoop.’⁶⁹

Certainly collectivistic actions are not restricted to traditional societies. In fact mercantilism, the classical economists, including Karl Marx⁷⁰ in particular placed collective agents at the centre of their systems.⁷¹ To incorporate collective actions into the neoclassical maximisation approach would change it out of recognition.

2.2.3.3 Pure Self-Interest

Since Adam Smith economists treat individuals as guided ‘in their economic activity exclusively by consideration of their individual [self-]interest’⁷². This account of Smith is undoubtedly over-simplified. In ‘The Theory of Moral Sentiments’ Smith stated that ‘[h]ow selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it’⁷³. It is ‘sympathy’ that enables man to act on motives other than self-interest, moral motives in par-

⁶⁹ M. Mead, *Cooperation and competition among primitive peoples*, Beacon Press, Boston, 1966, first published 1937, p. 31.

⁷⁰ Cf. e.g. K. Marx, ‘Nachwort zur zweiten Auflage’, in K. Marx, *Das Kapital: Kritik der politischen Ökonomie*, vol. 1: *Der Produktionsprozeß des Kapitals*, Europäische Verlagsanstalt, Frankfurt am Main, 1968, first published 1894, pp. 20-2.

⁷¹ Cf. Screpanti & Zamagni, p. 148.

⁷² Haller, p. 17, or cf. Menger, *Investigations*, pp. 82-9. Insertion by author.

⁷³ Mathis et al., p. 89, or A. Smith, *The theory of moral sentiments*, ed. by R. P. Hanley, Penguin, London, 2009, first published 1759, p. 13.

ticular.⁷⁴ Smith is explicitly opposed to an interpretation of these ‘moral sentiments’ as expression of the individual’s pursuit of self-interest.⁷⁵

Empiricism indicates the existence of pro-social behaviour even in the animal kingdom, for example among rats⁷⁶, certainly among humans in traditional societies⁷⁷ and in modern societies, too⁷⁸. The self-interest focused utility-maximising approach seems to be incapable of a proper understanding of a significant part if not most of (human) behaviour. Carl Menger would reply that at least insofar economic models are concerned, non-economic⁷⁹ motivations cannot be taken into account. On the one hand it is questionable whether it is really true that only self-interested motivations are relevant in the economic sphere, but what is more: To say that economists do not include motivations other than self-interest into their models is one thing, but that does not mean that other types of motivations do not exist. This distinction does not seem to be clear in a considerable part of contemporary contributions on this issue.⁸⁰

The neoclassical utility maximisation hypothesis is only equipped to include consequentialist motivations. An individual always acts on reasons that merely serve as a means to some other end. In order to fully understand human actions it is necessary to refer to

⁷⁴ Hecker, p. 173.

⁷⁵ Cf. *ibid.*, p. 173, or cf. M. Trapp, *Adam Smith: Philosophie und politische Ökonomie*, Vandenhoeck & Ruprecht, Göttingen, 1987, pp. 43-5.

⁷⁶ Cf. B. Inbal & A. Bartal et al., ‘Empathy and pro-social behavior in rats’, in *Science*, vol. 334, 2011, pp. 1427-30. The authors show how rats free cagemates from a restrainer, even if no individual benefit is involved and reciprocity is not possible.

⁷⁷ Cf. Elardo & Campbell, pp. 272-3, or cf. K. Polanyi, *The great transformation*, Farrar & Rinehart, New York, 1944, p. 46. Polanyi observes that tribal societies keep all members from starving.

⁷⁸ Cf. S. Meier, *The economics of non-selfish behavior: Decisions to contribute money to public goods*, Edward Elgar, Cheltenham UK & Northampton MA, 2006, pp. 135-7. The author studies donations of the Swiss after a natural disaster in Iran. The Swiss donations for the Iranian population cannot be explained by sympathy (giving to friends). Neither is it likely that Iran will ever reciprocate.

⁷⁹ Similar to the distinction of market- vs. non-market transactions, some remarks need to be made about the difference of economic- and non-economic motives. For Menger economic goods are defined by the fact that their desired amount is greater than the available amount. Accordingly, the economic sphere is there wherever relative scarcity persists. In contrast, Polanyi was aware of the fact that goods can be scarce in different ways (cf. the discussion of the *agatha*). He understood ‘the economic’ as being concerned with ‘material provisioning’. Similarly Keynes distinguished between ‘economic purposes’ and ‘non-economic purposes’. The former are concerned with the satisfaction of basic human needs (cf. *menschliche Unterhaltsfürsorge*), whereas the latter are about needs that exceed the basic material necessities. In this context, I adopt Polanyi’s use of the term ‘economic’.

⁸⁰ Cf. e.g. S. D. Levitt & S. J. Dubner, *Freakonomics: A rogue economist explores the hidden side of everything*, Penguin, London, 2005.

Immanuel Kant and include deontological motivations for actions: ‘Der gute Wille ist nicht durch das, was er bewirkt, oder ausrichtet, nicht durch seine Tauglichkeit zu Erreichung irgend eines vorgesetzten Zweckes, sondern allein durch das Wollen, d.i. an sich, gut’⁸¹. Kant is interested not in subjective, but in objective factors that determine the individual’s will to action⁸² and defines his categorical imperative accordingly: ‘Handle so, daß die Maxime deines Willens jederzeit zugleich als Prinzip einer allgemeinen Gesetzgebung gelten könne.’⁸³ The categorical imperative is such an objective motivation for actions, an individual does not perform an action as a means to some end, but because it is objectively good and necessary.⁸⁴ Efficiency, the core concept of economics, on the other hand, is an *Imperativ der Geschicklichkeit*⁸⁵. In this case it does not matter whether the end of an action is reasonable, efficiency is solely focused on what one needs to do in order to attain one’s end.⁸⁶ As an example of a categorical imperative, Kant discusses the Christian law of love: ‘Liebe Gott über alles und deinen Nächsten als dich selbst’. According to Kant, the utilitarian interpretation of this principle would have to read: ‘Liebe dich selbst über alles, Gott aber und deinen Nächsten um dein [sic] selbst willen.’⁸⁷ As the religious example shows again, it seems that economic explanations of human behavior, based on the utility maximisation assumption, fail to understand how real life human actions work.

A neoclassical attempt to include values and norms into the analysis can be seen in the work of Douglass C. North. He sees values and norms as ‘economizing device[s]’ in order to simplify decision-making processes.⁸⁸ Assuming a Kantian perspective, one

⁸¹ Kant, *Grundlegung*, p. 19. ‘A good will is not good because of what it effects or accomplishes, because of its fitness to attain some proposed end, but only because of its volition, that is, it is good in itself’. Kant, *Groundwork*, p. 8.

⁸² Cf. *ibid.*, p. 42.

⁸³ I. Kant, *Kritik der praktischen Vernunft*, ed. by W. Weischedel, Suhrkamp, Frankfurt am Main, 1974, first published 1788, p. 140. ‘So act that the maxim of your will could always hold at the same time as a principle in giving of universal law.’ I. Kant, *Critique of practical reason*, translation M. Gregor, Cambridge University Press, Cambridge UK, 2005, reprint of 1st ed. 1997, p. 28.

⁸⁴ Cf. Kant, *Grundlegung*, p. 43.

⁸⁵ ‘Imperative of skill’, cf. Kant, *Groundwork*, p. 26.

⁸⁶ Cf. *ibid.*, p. 44.

⁸⁷ Kant, *Kritik der praktischen Vernunft*, p. 205. ‘Love God above all, and your neighbor as yourself’, ‘Love yourself above all, but God and your neighbor for your own sake.’ Kant, *Critique of practical reason*, p. 71.

⁸⁸ Cf. North, *Structure and change*, p. 49.

would need to object. An action that is motivated by one's beliefs, values or perceived duty means to do what one believes to be *right*. That is very different from acting as a *means* to attain some *end*.

2.2.3.4 Calculatedness

Jeremy Bentham has deeply influenced economic thought by assuming that 'all men calculate'⁸⁹ and in these calculations are governed by 'two sovereign masters, *pain* and *pleasure*'⁹⁰. According to Ludwig von Mises then, later on, these 'means and ends or costs and proceeds'⁹¹ can always be clearly distinguished. There are no forms of exchange that do not fit exactly into this framework.⁹² The idea of an all pervasive utility maximisation as the sole motive for human action is built on this assumption that there is always a trade-off in the choice between two alternatives and that this trade-off is always calculable either in utility terms or in terms of monetary units or the individual's willingness to pay.

This construction is clearly contrasted by the work of many economic anthropologists. Marcel Mauss for example stated that

'[i]n the systems of the past we do not find simple exchange of goods, wealth and produce through markets established among individuals. For it is groups, and not individuals, which carry on exchange, make contracts, and are bound by obligations . . . Further, what they exchange is not exclusively goods and wealth, real and personal property, and things of economic value. They exchange rather courtesies, entertainments, ritual, military assistance, women, children, dances, and feasts; and fairs in which the market is but one element and the circulation of wealth but one part of a wide and enduring contract. Finally, although the prestations and counter-prestations take place under a voluntary guise they are in essence strictly obligatory, and their sanction is private or open warfare.'⁹³

The obligation that Mauss wrote about was a threefold one: the obligation to give, to receive and to repay.⁹⁴ Gift and counter gift can occur a long time apart. This 'time

⁸⁹ J. Bentham, *An introduction to the principles of morals and legislation*, T. Payne, London, 1789, chapter 14, xxviii.

⁹⁰ Ibid., p. 14, emphasis in the original.

⁹¹ Mises, *Human action*, p. 40.

⁹² Cf. *ibid.*, p. 40.

⁹³ Mauss, p. 3.

⁹⁴ Cf. *ibid.*, pp. 37-41.

separation' or 'lack of simultaneity' brings Pierre Bourdieu to conclude that 'the gift brings a symbolic negation of calculability and economic rationality.'⁹⁵

The assumed universality of the inclination to calculate is also put in question by the observations of Daniel L. Everett who worked as an anthropologist among the Pirahã people, a indigenous South American tribe. He found that, uniquely among the current languages of the world, the Pirahãs have no numbers and no quantifiers. They would not say 'there are four trees' but 'there is a tree, there is another, and another, and another.' Furthermore, words like 'all, each, every', etc. simply do not exist in their language.⁹⁶ First of all the Pirahãs seem to be a counter example for an assumed universal inclination to calculate according to Bentham, but what is more, a pervasive striving for a maximum appears more than unlikely in such a cultural and linguistic framework.

Another problem for the calculatedness-assumption are spheres of exchange,

'an arrangement where material objects are assigned to different spheres for transactional purposes. People freely exchange items within the same sphere and readily calculate their comparative values. But things in different spheres are not immediately exchangeable against one another, such that between spheres there is no ready conversion'⁹⁷.

For instance, the exchange of subsistence goods (e.g. food) follows different laws than the exchange of goods from the sphere of wealth (e.g. gold). Goods from different spheres of exchange cannot be easily compared in terms of a common denominator. Therefore the comparability of different commodities is culturally relative and might even be impossible in certain contexts. The construction of a utility function that works on the basis of calculable trade-offs between all relevant factors would then be impossible.

Finally, as has been examined in chapter 2.2.3.4, deontological motives are of a completely different kind than consequentialist ones. If an individual acts according to a maxim, like the categorical imperative, and consequently attempts to do something,

⁹⁵ I. Negru, 'The plural economy of gifts and markets', in R. Garnett, E. K. Olsen & M. Starr (ed.), *Economic pluralism*, Routledge, London, 2010, pp. 197-8. Negru is referring to P. Bourdieu, *Outline of a theory of practice*, Cambridge University Press, Cambridge UK, 1977, in particular pp. 4-7.

⁹⁶ Cf. Everett, in particular pp. 117-9, 195-6.

⁹⁷ P. Sillitoe, 'Why spheres of exchange?', in *Ethnology*, vol. 45, no. 1, 2006, p. 1.

because she⁹⁸ simply believes that it is the right thing to do, there is no trade-off with other consequentialist motives that could be expressed in utility or monetary terms.

A comprehensive theory of (economic) actions, however, would have to be able to incorporate all these different kinds of motives.

2.2.3.5 Economic Motives

According to Adam Smith, man has a natural ‘propensity to truck, barter, and exchange one thing for another.’ He continues that this is distinctively human, because ‘[n]obody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog.’⁹⁹

On the other hand, everybody has heard about cats that, knowing that their owners care for their sustenance, often try to reciprocate this by offering the owner a mouse as part of its prey. This sequence of gift and counter-gift looks very much like a form of gift-giving. Maybe some forms of exchange are even more natural than those that occur out of purely economic motives. Similarly, Polanyi distanced himself from Smith by saying ‘[i]f so-called economic motives were natural to man, we would have to judge all early and primitive societies as thoroughly unnatural.’¹⁰⁰

In fact, Polanyi said, the focus on material motives is ‘arbitrary’. It is simply assumed that man acts on material incentives in his everyday life and the production processes are designed accordingly. Consequently man, who acts inside these structures, appears to be essentially materialistic. The same, however, could be done with any other possible motive. One could choose to assume man’s motives as traditional and organise production accordingly, and then man would appear to the observer as naturally guided in his actions by tradition.¹⁰¹

⁹⁸ In order to avoid gender issues, I am sometimes using the female form, sometimes the male.

⁹⁹ A. Smith, *An inquiry into the nature and causes of the wealth of nations*, ed. by E. Cannan, Random House, New York, 1994, first published 1776, p. 14.

¹⁰⁰ K. Polanyi, ‘Our obsolete market mentality: Civilization must find a new thought pattern’, in *Commentary*, vol. 3, 1947, p. 112.

¹⁰¹ Cf. Polanyi, *The livelihood*, p. 11.

‘In fact, human beings will labor for a large variety of reasons so long as they form part of a definite social group. Monks traded for religious reasons, and monasteries became the largest trading establishments in Europe. The kula trade of the Trobrian Islanders, one of the most intricate barter arrangements known to man, is mainly an aesthetic pursuit. Feudal economy depended largely on custom or tradition. With the Kwakiutl, the chief aim of industry seems to be to satisfy a point of honor. Under mercantile despotism, industry was often planned so as to serve power and glory. Accordingly, we tend to think of monks, Western Melanesians, villains, the Kwakiutl, or seventeenth-century statesmen as ruled by religion, aesthetics, custom, honor, or power politics, respectively. Nineteenth-century society was organized in such a fashion as to make hunger or gain alone into effective motives for the individual to participate in economic life. The resulting picture of man ruled only by materialistic incentives was entirely arbitrary.’¹⁰²

Later, Gunnar Myrdal distinguished between an individual’s *interests* and *attitudes*. An attitude is ‘the emotive disposition of an individual or group to respond in certain ways to actual or potential situations’. This might include certain beliefs, a class consciousness, or a perception of injustice. To deny that man acts only according to his economic self-interest, Myrdal emphasises that ‘[f]ortunately there are many people whose attitudes are not identical with their interests.’¹⁰³

Finally, we can once again refer to Kant’s critique of practical reason, and state that to act according to the categorical imperative; that is, to act in a certain way because you believe it to be the right thing to do, is very different from acting out of purely economic motives.

We can conclude that an explanation of human behaviour, even of strictly economic behaviour, is too limited if it only refers to economic motives.

2.2.3.6 Ex-Post Explanations

Another problem of the economic standard approach to explaining human behaviour is that ex-post every action can be interpreted as utility maximising.¹⁰⁴ This is achieved by initially leaving the content of the utility function unspecified¹⁰⁵ and then ex-post positing an appropriate formulation of the function¹⁰⁶ that fits the observed behaviour.¹⁰⁷

¹⁰² Polanyi, *The livelihood*, pp. 11-2.

¹⁰³ G. Myrdal, *The political element in the development of economic theory*, Routledge, London, 1953, pp. 199-200.

¹⁰⁴ Cf. Leibenstein, p. 8.

¹⁰⁵ Cf. Vanberg, p. 5.

¹⁰⁶ Cf. *ibid.*, p. 5, or cf. P. S. Albin, *Barriers and bounds to rationality: Essays on economic complexity and dynamics in interactive systems*, Princeton University Press, New Jersey, 1998, p. 23: ‘The hy-

As long as it is impossible to behave non-utility-maximising, the utility maximisation-hypothesis is meaningless.¹⁰⁸ In other words, it is a tautology, since the statement is always true.¹⁰⁹ The greater the number of possible falsifiers, the greater the information content of a hypothesis.¹¹⁰ If a statement has no possible falsifiers, like the utility maximisation hypothesis, its information content is zero.

Either you need to fix the utility function in advance and allow individuals to act irrationally, that is non-utility-maximising, or the information content of an explanatory theory of human actions lies in identifying and understanding the ‘utility’-relevant factors, which sounds very much like the interpretive method of the historical school¹¹¹ rather than the neoclassical approach.

2.3 Explanations in Economics

If economics is about explaining ‘human behaviour’,¹¹² how are explanations in economics constructed? What role does the concept of rationality play? What do we mean when we say that an individual acts rationally and what does it mean to act, in the first place?

2.3.1 The Meaning of ‘Explanation’

What does it mean to explain something? Mainstream economics tries to imitate the natural sciences in its explanations of economic processes and actions. Menger, for instance, said that the relationship of theoretical economics to the economising individual is the same as the relationship of chemistry and the practising chemist. An individual’s

pothesis of rationality puts no observational restrictions on an agent’s actions. We can always rationalize behavior by positing an appropriate objective function.’

¹⁰⁷ Cf. G. Helgesson, *Values, norms & ideology in mainstream economics*, doctoral dissertation, Uppsala University, 2002, p. 144.

¹⁰⁸ Cf. Leibenstein, p. 8.

¹⁰⁹ Cf. F. Laville, ‘Should we abandon optimization theory? The need for bounded rationality’, in *Journal of Economic Methodology*, vol. 7, no. 3, 2000, p. 409.

¹¹⁰ Cf. R. Schnell, P. Hill & E. Esser, *Methoden der empirischen Sozialforschung*, 9th ed., Oldenbourg, Munich, 2011, p. 58.

¹¹¹ Cf. Schefold, ‘Werner Sombart’, pp. 59-61.

¹¹² Robbins, *An essay*, p. 16.

behaviour might deviate from the law-like relationship, but the law itself has general explanatory power.¹¹³

Similarly von Mises: ‘One must study the laws of human actions and social cooperation as the physicist studies the laws of nature.’¹¹⁴ He continues and distinguishes between *praxeology* and *history*. Whereas history is only concerned with particular cases of the past, the statements of praxeology are universal and valid in all instances.¹¹⁵ Von Mises’ position is in line with that of Richard A. Posner who maintained that people are ‘rational maximizers’¹¹⁶. According to Posner this applies to all areas of life, not just to the market; people are just as much rational maximisers when it concerns their marriage, as they are when their hourly wage is concerned. Consequently, the analytical toolbox of the economist can be applied to nonmarket behaviour as well.¹¹⁷

So is there really no fundamental difference between explanations in the natural sciences and those in economics? Yes, there is. When scientists try to explain something, they refer to laws of nature.¹¹⁸ A law of nature is ‘an empirical truth of great generality, conceived of as a physical (but not a logical) necessity, and consequently licensing counterfactual conditionals’¹¹⁹. If I hold an apple in my hand and let go of it, it will – by physical necessity – fall down to the ground.

Explanations in economics, on the other hand, are rather ‘common-sense generalizations’¹²⁰, referring to the rationality postulate. If a person acts, he does not do so because some law of nature, ‘makes him do it’, but because it is rational for him to act as he does. That does not mean that there are no laws in economics, but it certainly means that such laws must be of a different kind than the laws of nature. Consider the case of one

¹¹³ Cf. B. Priddat, *Der ethische Ton der Allokation: Elemente der aristotelischen Ethik und Politik in der deutschen Nationalökonomie des 19. Jahrhunderts*, Nomos, Baden-Baden, 1991, p. 210, or cf. Menger, *Grundsätze*, 1990, p. ix.

¹¹⁴ Mises, *Human action*, p. 2.

¹¹⁵ Cf. *ibid.*, pp. 30-2.

¹¹⁶ Posner, p. 1.

¹¹⁷ Cf. *ibid.*, pp. 1-2.

¹¹⁸ Cf. Lagueux, *Rationality and explanation*, p. 16.

¹¹⁹ ‘Law of nature’, in *Collins English Dictionary*, 10th ed., Harper Collins, Glasgow, 2009, retrieved 23 February 2012, <<http://dictionary.reference.com/browse/law+of+nature>>.

¹²⁰ Cf. Lagueux, *Rationality and explanation*, p. 19.

of the possibly ‘best-corroborated statistical “laws . . .” of economics’¹²¹: the law of a downward sloping demand curve. Demand decreases in case of a rising price. That, however, is not a result of some physical force that leaves no alternative to the individual, but we simply assume that the individual will react to an incentive and buy less if the price increases. If, for some reason he wanted to, he could buy more. The apple in my hand, in contrast, cannot choose not to fall down to the ground.

Rationality-based explanations need to analyse and interpret the actors’ reasons, whereas this is neither necessary nor possible in the sphere of the natural sciences.¹²²

2.3.2 The Meaning of ‘Rationality’

What does it mean to act rationally? The original meaning of rationality can be traced back at least to Aristotle: acting ‘in accordance with good reasons’¹²³. Up to and including the classical economists, the concept of rationality remained an implicit and vague part of economic theory¹²⁴ and also in everyday speech, this minimal definition of ‘rationality’ is still the common use of the term.¹²⁵ Only since the marginal revolution and the work of Walras, Menger, and Jevons, rationality assumed its essential role in economic theory and became defined as strict utility maximisation.¹²⁶

‘With the help of a cardinal unit of utility, it was made possible to represent a rational agent as a mere utility maximiser.’¹²⁷ After abandoning cardinal utility theory, ordinalists could retain the mathematical concept of utility maximisation with the help of

¹²¹ M. Blaug, *The methodology of economics: Or how economists explain*, 2nd ed., Cambridge University Press, Cambridge UK, 1994, p. 139.

¹²² Cf. Lagueux, *Rationality and explanation*, p. 237.

¹²³ A. Sen, ‘Rational behaviour’, in *The new Palgrave dictionary of economics*, ed. by S. N. Durlauf & L. E. Blume, Macmillan, Basingstoke, 2008, retrieved 23 February 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_R000022>.

¹²⁴ Cf. Lagueux, *Rationality and explanation*, pp. 37-8. Cf. for example the gravitation of market prices around normal prices.

¹²⁵ Cf. Blaug, *The methodology of economics*, p. 229.

¹²⁶ Cf. Lagueux, *Rationality and explanation*, pp. 37-8, and cf. L. E. Blume & D. Easley, ‘Rationality’, in *The new Palgrave dictionary of economics*, ed. by S. N. Durlauf & L. E. Blume, Macmillan, Basingstoke, 2008, retrieved 23 February 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_R000277>.

¹²⁷ M. Lagueux, ‘The forgotten role of the rationality principle in economics’, in *Journal of Economic Methodology*, vol. 11, no. 1, 2004, p. 35.

Paretian indifference maps.¹²⁸ Later, Paul Samuelson focused his analysis on preferences that were revealed through choices, rather than on the maximisation of predetermined preferences. Then rationality does not necessarily imply some form of maximisation, but consistency in choices.¹²⁹ Through this process of formalisation and axiomatisation, the original meaning of the concept was forgotten more and more.¹³⁰

We can recapitulate: Rationality can be defined in a maximal and in a minimal way. According to the former, rationality is a synonym for maximisation and optimisation.¹³¹ To act rationally means ‘choosing in accordance with a preference ordering that is complete and transitive, subject to perfect and costlessly acquired information’¹³². If utility maximisation is assumed ex-post, then the concept is robbed of all its explanatory power. In order to have meaning, it must be possible to act non-utility-maximising.¹³³ If a certain utility function is defined ex-ante, almost every action will be irrational in an optimisation sense.¹³⁴

‘Human beings rarely maximize and are far from being consistent; they hesitate, make mistakes, change their mind, regret, suffer from myopia; nonetheless, they are not stupid’.¹³⁵ This is exactly the minimal definition of rationality: acting for reasons, acting purposefully and intentionally. Under this view, it is difficult to find actions that are clearly irrational.¹³⁶ They do exist, however, but distinguishing between a rational and an irrational action will be a matter of interpretation¹³⁷ and therefore, of understanding the individual motives in the first place.

That individuals act for a multitude of reasons has been shown in chapter 2.2.3. Thus, I cannot agree with Menger, who saw only one motive at work behind all human actions:

¹²⁸ Cf. Lagueux, ‘The forgotten role’, p. 36.

¹²⁹ Cf. *ibid.*, p. 38.

¹³⁰ Cf. *ibid.*, p. 48.

¹³¹ Cf. Leibenstein, p. 76.

¹³² Blaug, *The methodology of economics*, p. 229.

¹³³ Cf. Leibenstein, p. 8.

¹³⁴ Cf. Lagueux, *Rationality and explanation*, p. 92.

¹³⁵ *Ibid.*, p. 5.

¹³⁶ Cf. *ibid.*, pp. 2, 92.

¹³⁷ Cf. *ibid.*, p. 105.

The purely self-interested attempt to substitute one state of affairs by another that suits oneself better.¹³⁸ First of all, this is simply wrong. Just to mention three things: One would need to consider altruistic and deontological motives as well. Also, actions can be reactions to changing circumstances. But most importantly, Menger's statement gives the impression that one can ignore the differences in the specific motivations of economic actors. This chapter argues that the uncovering and understanding (*Verstehen*) of reasons is in fact the main task in analysing human actions.

2.3.3 The Meaning of 'Actions'

For humans to act means to act for reasons,¹³⁹ but what is a reason? Reasons can be either internal or external. According to internalism, 'certain judgements, for instance that one ought to A, can provide a sufficient reason for which one A's'¹⁴⁰. This approach is also called the desire-belief-model. In this framework, the fact that I go to the supermarket can be explained by firstly my desire to eat chocolate and also my belief that going to the supermarket is conducive to eating chocolate. According to this view, if no belief plays a part, a windfall event might occur and possibly even satisfy a desire, but it would be wrong to speak of an action. Correspondingly, if no desire plays a part, there might be physical movement, however, no action would be performed. Thus certain mental states – desires and beliefs – would explain actions: 'if S A's for r, then her wanting to r is part of what explains why she A's.'¹⁴¹

A competing view sees actions as explained by external reasons. An action is a response to some external state of affairs in the world, rather than a response to a mental state of a person.¹⁴² For instance, I go out for a walk, because the sun is shining.

The dispute as to which view is correct – internalism or externalism – is far from being solved, and judgements between the competing approaches are based on more than

¹³⁸ Cf. Mises, *The ultimate foundation*, p. 77.

¹³⁹ Cf. R. Audi, 'Acting for reasons', in *The Philosophical Review*, vol. 95, no. 4, 1986.

¹⁴⁰ *Ibid.*, p. 512.

¹⁴¹ *Ibid.*, p. 516.

¹⁴² Cf. R. Bittner, *Doing things for reasons*, Oxford University Press, Oxford & New York, 2001, pp. ix, 65.

purely theoretical reasons.¹⁴³ For the purposes of this thesis, it does not matter, whether we assume external or internal reasons. Also, even for the externalist view, the favourable weather conditions are not sufficient for explaining my going on a walk, there must have been my desire to go outside in the first place, otherwise I would not have ‘chosen’ the shining sun as a reason for my action.¹⁴⁴

In this chapter I simply define human actions as actions for reasons, internal and external,¹⁴⁵ and I use a broad concept of desires: ‘wantings, urges, promptings, and a great variety of moral views, aesthetic principles, economic prejudices, social conventions, and public and private goals and values’¹⁴⁶.

It follows that to act means to act consciously and purposively.¹⁴⁷ The opposite of an action is not irrational behaviour, but actions without desires or beliefs, as for instance in a purely instinctive reaction.¹⁴⁸ To act rationally is to act according to one’s reason and to act irrationally is to fail to act according to one’s true motives.¹⁴⁹

Again, one can see that in order to distinguish rational actions from irrational ones, one needs to know and to understand the agent’s reasons.¹⁵⁰ As has been mentioned before, this is very different from explanations in the natural sciences. A physicist would never ask the question, ‘for what reason did this body move towards the other’. In Post-Aristotelian science, one does not refer to the purpose of a thing, but only to general, testable laws of nature. On the contrary, for an economist it is a reasonable question to

¹⁴³ Cf. J. Dancy, *Practical reality*, Oxford University Press, Oxford & New York, 2002, pp. 154-8.

¹⁴⁴ Cf. Bittner, pp. 107-8.

¹⁴⁵ Here this paper refers to G. H. von Wright, who also distinguished between internal and external reasons, without limiting explanations to just one of them. Cf. G. H. von Wright, ‘Explanation and understanding of action’, in *Philosophical papers of Georg Henrik von Wright, vol. 1: Practical reason*, Blackwell, Oxford, 1983, pp. 53-66.

¹⁴⁶ Bittner, pp. 3-4, or D. Davidson, ‘Actions, reasons, and causes’, in *Journal of Philosophy*, vol. 60, no. 23, 1963, p. 686.

¹⁴⁷ Cf. Audi, p. 511, cf. L. von Mises, ‘The treatment of “irrationality” in the social sciences’, in *Philosophy and Phenomenological Research*, vol. 4, no. 4, 1944, p. 530.

¹⁴⁸ Cf. *ibid.*, p. 534.

¹⁴⁹ Thus, I disagree with von Mises’ view that ‘[a]s far as there is scarcity of means, man behaves rationally, i.e., he acts. So far there is no room left for “irrationality”’, Mises, ‘The treatment of “irrationality”’, p. 544.

¹⁵⁰ Cf. Audi, p. 511.

ask, why an individual is consuming less, if the price for the good concerned has risen. In fact, understanding the motives is essential for explaining the action.¹⁵¹

2.4 A Comprehensive Theory of Action for Economics

The general idea of utility maximisation has already been discussed in chapter 2.2. Here, the neoclassical approach will be presented in a slightly more analytical way, in order to illustrate how it differs from an explanation of human actions based on the original meaning of the term rationality, that is ‘acting for reasons’.

2.4.1 Maximal Rationality

As discussed in chapter 1, the neoclassical model for the explanation of human actions considers exclusively choice under conditions of scarcity. It abstracts from the institutional framework and therefore is supposed to be applicable to any society.¹⁵²

Consider an example. There are two fishermen: A and B, who live in the same village. A gets up very early after having slept for only a couple of hours, is very focused on his work, tries to catch as many fish as possible, and attempts to sell his catch for as high a price as he can, in order to maximise his income. He does not bother to have expensive or time consuming hobbies, and goes to bed early, since he needs to get up early the next morning.

Then there is B. He sleeps long and goes out on the sea late. When he thinks he has caught enough fish to cover his usual expenses he sells his catch, possibly to the same trader every day. After work, he meets some friends or relaxes at home in his hammock.

An economist, trying to explain human behaviour might ask himself how two individuals living under approximately the same conditions can still behave so differently? The neoclassical answer is: In both cases the same decision procedure takes place. Both individuals have a utility function that they try to maximise.

¹⁵¹ Cf. Lagueux, *Rationality and explanation*, p. 202.

¹⁵² Cf. D. B. Fustfeld, ‘Economic theory misplaced: Livelihood in primitive society’, in *Trade and market in the early empires: Economies in history and theory*, ed. by K. Polanyi, C. M. Arensberg & H. W. Pearson, Free Press, New York, 1957, p. 343.

$$\max U (x_i, T, P, S, \varepsilon) \quad (2.1)$$

In both cases the individual utility would be a function of factors like the goods consumed (x_i), leisure time (T), prestige (P), stability or safety (S) and other relevant factors (ε). The only difference would be that A and B put different weights to the individual factors. A's utility function could then look like this:

$$\max U_A (0.5 x_i, 0.2 T, 0.05 P, 0.1 S, 0.15 \varepsilon) \quad (2.2)$$

and B's like this:

$$\max U_B (0.2 x_i, 0.4 T, 0.1 P, 0.1 S, 0.2 \varepsilon) \quad (2.3)$$

Whereas for A income and consequently goods consumed are most important, B puts an emphasis on his leisure time. Seen from this perspective, both actions appear to be utility maximising and therefore efficient in their own way.

2.4.2 Minimal Rationality

What happens, however, if some of the utility-relevant factors do not have a calculable trade-off with other factors, if for example individual C is confronted with the decision of whether to donate money to a charity or not. If C, for instance, is a religious person and feels obliged to do what he considers to be right, then his decision to donate is not an outcome of a reasoned weighting of different factors of his utility function, C acts according to a categorical imperative. Maybe C has true compassion for people who are worse off than himself, then subsuming his 'altruistic' motives under his own utility function, so that helping others simply makes him feel better, is simply a distortion of what is really going on. Neoclassically speaking, true altruism is having an interest in another person's utility function, without knowing whether one's action will have any impact on one's own utility. Genuine altruism, deontological motives and other beliefs cannot be subsumed under one utility function in the same way as goods consumed and leisure time can be. In order to construct a trade-off one would need to trace back all factors to a common denominator, for example the willingness to pay for it. That is not

possible with all factors that determine human actions, as has been extensively discussed in chapter 1.3.

On the other hand, an explanation of human actions in terms of the minimal rationality concept might be able to incorporate very diverse motives for actions. If rationality is not defined as maximising one's utility, but as acting for reasons, these reasons can be very different in nature and do not necessarily have to stand in a trade-off to each other. Reasons for actions might indeed be goods consumed, leisure time, prestige, stability, but also (genuine) altruism, beliefs and other deontological motives. An explanation for action θ , performed by individual C, would need to be able to incorporate all these different motives:

$$x_i, T, P, S, \text{altruism, beliefs \& convictions}, \varepsilon \rightarrow \theta \quad (2.4)$$

Some of these factors might indeed be of a calculable nature so that it would be possible to construct a trade-off between them. Such factors can be denoted as α_i . But then there are also other factors that are relevant for the individual's actions, but cannot be traced back to a common denominator, these are denoted as β_i . Consequently one can formulate this more comprehensive approach to explanations of human actions in economics as:

$$\alpha_1, \dots, \alpha_n, \beta_1, \dots, \beta_n \rightarrow \theta \quad (2.5)$$

Note that the individual factors are not subsumed under one pair of brackets, to indicate that they are not all of the same nature. Secondly, there is no 'max' placed in front of 'function' 2.5. Since, according to the minimal rationality concept, to act rationally simply means to act for reasons and does not necessarily involve the pursuit of an optimum. This should not be interpreted as nonsensical behaviour. On the contrary, rational behaviour is purposive and intentional, nonetheless not necessarily *optimal*.¹⁵³ In contrast to approaches such as Leibenstein's or Simon's, the non optimality is also no form of op-

¹⁵³ Cf. P. Koslowski, 'Economics as ethical economy and cultural economics in the historical school', in H. H. Nau & B. Schefold (ed.), *The historicity of economics: Continuities and discontinuities of historical thought in 19th and 20th century economics*, Springer, Berlin, 2002, p. 161.

timisation of secondary degree that optimises the degree of optimisation subject to the cost of calculation and information, and the limited calculating capabilities of the agent.

One can also see that explanations based on the minimal rationality concept involve interpretations of the reasons for which individuals act, ‘interpretations that are not required, at least to the same degree, in explanations typical of natural sciences’¹⁵⁴. Most appropriate for this endeavour seems to be an interpretive method (*Verstehende Methode*), as it was developed by the German Historical School, in particular by Werner Sombart.

2.5 Discussion

In order to conclude, this section elaborates on the limits of the utility maximisation approach and argues for the need to use a more comprehensive approach in the general case. Finally, some adjacent research questions are introduced.

2.5.1 Conclusions

A common interpretation of the neoclassical utility maximisation model is that, although it has many shortcomings, it is a useful approximation of reality, as long as one is concerned with market processes.¹⁵⁵ But even on markets, agents are rarely guided by purely economic, consequential motives.¹⁵⁶ Furthermore, the standard approach becomes inappropriate, the more ‘economics is developing into a general social science, applicable to the non-market as well as to the market realm, and as it aims at explaining political and institutional phenomena no less than market behaviour’¹⁵⁷. The broader the definition of economics, the broader the explanatory model for economic actions needs to be.¹⁵⁸

¹⁵⁴ Lagueux, *Rationality and explanation*, p. 237.

¹⁵⁵ Onorati, p. 4, Meier, p. 138, Haller, p. 18, Vanberg, p. 8.

¹⁵⁶ Cf. Koslowski, ‘Economics as ethical economy’, p. 169.

¹⁵⁷ Vanberg, p. 21.

¹⁵⁸ Cf. *ibid.*, p. 21.

Moreover, a theory in the social sciences is never completely value neutral. Even if it was true that the utility maximisation approach would be a useful approximation of reality on markets, though not completely realistic, it is essential to distinguish between the theoretical results and reality itself. If economists decide to consider only economic motives in their explanatory models, one needs to be careful not to make the mistaken assumption that there were no other motives at all, as if, since we are not speaking about non-economic motives, there are none.

Economists are very fond of exact results and mathematically elegant models. In this light, the explanatory model discussed in chapter 2.4.2 might seem too vague. But to speak with Voltaire: ‘Le doute n’est pas une condition agréable, mais la certitude est absurde’¹⁵⁹, especially in a matter as complex as economics.¹⁶⁰

2.5.2 Outlook

It is a rather recent development that the economy and in particular that the society is based on markets.¹⁶¹ As has been emphasised by the Historical School, the institutional framework has to be understood as historically formed and as a variable to be explained.¹⁶² In the words of Douglass C. North:

‘History demonstrates that ideas, ideologies, myths, dogmas, and prejudices matter; and an understanding of the way they evolve is necessary for further progress in developing a framework to understand societal change.’¹⁶³

But it is not only the institutions that have evolved historically, ‘ideas do not originate in an ideological vacuum’ as well. ‘They are called forth by the previously existing ideological structure’¹⁶⁴. Likewise, the efficiency focus; that is, the all-prevailing pursuit of

¹⁵⁹ Voltaire, *Letter to Frederick II of Prussia*, 06 April 1767, as cited in H. D. Kurz & N. Salvadori, ‘On critics and protective belts’, in H. D. Kurz & N. Salvadori (ed.), *Understanding ‘classical’ economics: Studies in long-period theory*, Routledge, London, 1997, p. 237: ‘Doubt is not an agreeable condition, but certainty is an absurd one.’

¹⁶⁰ Cf. Kurz & Salvadori, p. 237.

¹⁶¹ Cf. Polanyi, *The great transformation*, p. 43.

¹⁶² Cf. Koslowski, ‘Economics as ethical economy’, p. 143.

¹⁶³ North, ‘Economic performance’, p. 362.

¹⁶⁴ L. von Mises, *Theory and history: An interpretation of social and economic evolution*, Yale University Press, New Haven, 1957, p. 188.

an optimum, is not a quasi-law of nature, no necessity, but it is contingent, a product of the history of thought and changing economic conditions.

This development, the striving for efficiency, will be the subject of the next chapter ‘On the Historicity and Normativity of Efficiency’. Referring to Max Weber who identified a tendency towards a growing dominance of a means-ends-rationality in various spheres of human life, I will analyse which factors contributed to the formation of the focus on efficiency. In the context of the theories of action, the question will be: Where does the ‘max’ in front of the utility function come from?

3 On the Historicity and Normativity of Efficiency

3.1 Problem Outline

The idea of efficiency is central to economics.¹⁶⁵ In fact, optimisation pervades all branches of the science¹⁶⁶. In addition, economics is often held to be an imperialistic science,¹⁶⁷ and thus the ideal of efficiency penetrates more and more hitherto non-economic areas of life.¹⁶⁸ Today, efficiency appears as a constituting part of economics. Economic logic almost seems to be defined as the logic of efficiency. The purpose of this chapter is to question this natural-law-like understanding of the concept of efficiency and to show that on the contrary the concept has a history and has normative features.

3.1.1 Introducing the Concept of Efficiency

Efficiency means ‘obtaining the maximum output for given inputs’¹⁶⁹. Other definitions sometimes emphasise the aspect of non-wastefulness¹⁷⁰ and in economics efficiency is often used synonymously for ‘Pareto-efficiency’ which means that no further Pareto-improvements are possible, where a Pareto-improvement is a reallocation that makes at least one individual better-off while no individual is made worse-off.¹⁷¹ Additionally, it is important to differentiate between efficiency and effectiveness. While efficiency de-

¹⁶⁵ Cf. U. Knobloch, ‘Effizienz als oberster Wert? Eine Auseinandersetzung mit den Antworten institutioneller Ökonomik’, in *Normative Grundfragen der Ökonomik: Folgen für die Theoriebildung*, ed. by M. Held, Campus, Frankfurt am Main, 1997, pp. 169.

¹⁶⁶ Cf. e.g. P. A. Samuelson, *Foundations of economic analysis*, 5th ed., Harvard University Press, Cambridge MA et al., 1983, first published in 1947, p. 21.

¹⁶⁷ Cf. G. Kirchgässner, ‘Ökonomie als imperial(istisch)e Wissenschaft’, in *Jahrbuch für neue politische Ökonomie*, vol. 7, 1988, pp. 128ff., or cf. J. Hirshleifer, ‘The expanding domain of economics’, in *The American Economic Review*, vol. 75, no. 6, 1985, p. 53.

¹⁶⁸ Cf. e.g. J. A. Schumpeter, *Kapitalismus, Sozialismus und Demokratie*, 7th ed., Francke, Tübingen, 1993, pp. 253-4.

¹⁶⁹ ‘Efficiency’, in *A dictionary of economics*, ed. by J. Black et al., Oxford University Press, 2009, retrieved 23 February 2012, <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t19.e957>>.

¹⁷⁰ Cf. e.g. B. Lockwood, ‘Pareto-efficiency’, in *The new Palgrave dictionary of economics*, ed. by S. N. Durlauf & L. E. Blume, Macmillan, Basingstoke, 2008, retrieved 23 February 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_P000024>.

scribes the relation between inputs and outputs, effectiveness focuses on the degree to which a given objective could be achieved.¹⁷²

Writing about efficiency is rather difficult since terms as *Pareto-efficiency*, *effectiveness*, *optimality* and *maximum* or *minimum* are often used synonymously. Since this dissertation deals with a wide range of academic literature and different ideas of efficiency, in this context the term ‘efficiency’ is used in a broad sense standing for a concept that mainly contains three aspects: an input-output-relation, non-wastefulness, and a maximum/minimum-logic.

3.1.2 Definitions of Economics & Economic Imperialism

In the history of economic thought, there have been many attempts to give the subject a precise definition. Early formulations usually define economics by its subject-matter. In the early 19th century, economics would usually be defined as the study of ‘the production, the distribution and the consumption of wealth’¹⁷³. Vilfredo Pareto later described the subject of pure economics as:

‘Comme la mécanique rationnelle considère des points matériels l’économie pure considère l’homo oeconomicus. C’est un être abstrait, sans passions ni sentiments, recherchant en toute chose le maximum de plaisir ne s’occupant d’autre chose que de transformer les uns ou les autres les biens économique.’¹⁷⁴

For Werner Sombart, the subject-matter of economics is ‘die menschliche Unterhaltsfürsorge’¹⁷⁵ and Marshall writes:

‘Economics is a study of mankind in the ordinary business life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing.’¹⁷⁶

¹⁷¹ Cf. Lockwood.

¹⁷² Cf. P. Eichhorn, *Das Prinzip Wirtschaftlichkeit*, 2nd ed., Gabler, Wiesbaden, 2000, p. 140.

¹⁷³ Cf. e.g. J. B. Say, *A treatise on political economy; or the production, distribution, and consumption of wealth*, Wells & Lilly, Boston, 1824, originally published in French 1803. Cf. G. J. Stigler, ‘Economics: The imperial science?’, in *Scandinavian Journal of Economics*, vol. 86, no. 3, 1984, p. 301.

¹⁷⁴ V. Pareto, ‘Anwendungen der Mathematik auf Nationalökonomie’, in: *Encyklopädie der mathematischen Wissenschaften mit Einschluss ihrer Anwendungen*, vol. 1, B. G. Teubner Verlag, Leipzig, 1905, p. 1100. ‘As mechanics is concerned with material points in space, economics is concerned with the *homo oeconomicus*, who is an abstract being, without passions or sentiments, always pursuing a maximum of pleasure, never caring for anything else, except for the transformation of one economic good into another.’ (translation: author).

¹⁷⁵ Sombart, p. 21. Cf. ‘material provisioning’ (translation: author).

Lionel Robbins' definition of economics, formulated in 1932, is still today the most prominent one: 'Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.'¹⁷⁷ Thus economics is no longer confined to the study of material well-being or even market processes. Time management, family planning, healthcare, etc. become elements of economic considerations,¹⁷⁸ which shows that even the definition of economics is a cause of its imperialistic nature.

This development culminates in the definition of economics by Gary S. Becker. It contains a decisive shift of attention away from the subject-matter of economics to its methods: 'The economic approach assumes that all behavior results from maximizing utility functions that depend on different commodities'¹⁷⁹. Hence, economics in this imperialistic sense is basically the application of a general socioscientific model of behaviour.¹⁸⁰ This approach is no longer confined to phenomena related to production, distribution and consumption and since economics includes the traditional tools for handling market processes, when the methods of economics are applied to hitherto non-economic phenomena, the market-logic is extended to all different areas of life. Economics after Becker, is 'a general analytical machine, the machine of maximizing behavior.'¹⁸¹

3.1.3 Economics and Efficiency – Inextricably Interwoven?

Is efficiency a constituting part of economics? Are both inextricably interwoven? For Becker, the answer is clearly yes, maximising behaviour lies at the heart of the economic approach.¹⁸² You could for example argue that scarcity, as part of the nature of the world we live in, compels efficient economising. I will consider the issue of scarcity in the next chapter (3.2), but if efficiency were a necessary element of all economic be-

¹⁷⁶ A. Marshall, *Principles of economics: An introductory volume*, 7th ed., Macmillan, London, 1916, first published in 1890, p. 1.

¹⁷⁷ Robbins, *An essay*, p. 16.

¹⁷⁸ Cf. Becker, p. 4.

¹⁷⁹ *Ibid.*, p. 284.

¹⁸⁰ Cf. Kirchgässner, p. 132.

¹⁸¹ Stigler, p. 312.

¹⁸² Cf. Becker, p. 5.

haviour, it would have been so in all periods of history. It will be necessary to analyse whether that is really the case.

In ‘Stone Age Economics’, Marshall Sahlins finds that the typical hunter-gatherer societies were ‘uneconomic m[e]n’¹⁸³. They seem to have constantly underused their potential, by for example resting and sleeping more than necessary.¹⁸⁴ There is no sign of maximising behaviour in these societies.¹⁸⁵

The concept of efficient economising was also alien to many thinkers of ancient Greece. Plato wrote ‘our present fight in this matter is against two foes, poverty and plenty, of which the one corrupts the soul of men with luxury, while the other by means of pain plunges it into shamelessness.’¹⁸⁶ This sounds very similar to Aristotle’s notion that virtue is an intermediate between two extremes.¹⁸⁷ Aristotle condemns chrematistics as an unnatural striving for profit maximisation and unlimited consumption.¹⁸⁸ For him there is a natural limit to the pursuit of possession and consumption.¹⁸⁹ Instead of profit and utility maximisation, concepts such as income conditional on status, quality and limited needs in order to live the good life are prevalent.¹⁹⁰

In general, traditional societies preceding capitalistic ones, were not efficiency oriented. Traditional societies were mainly static, focused on preservation and continuity¹⁹¹ and

¹⁸³ M. Sahlins, *Stone age economics*, Tavistock, London, 1981, reprint of 1st ed. 1974, p. 13.

¹⁸⁴ Cf. *ibid.*, pp. 17-8.

¹⁸⁵ Contrary to Arnold Gehlen, who sees a certain ‘Antriebsüberschuss’ as an essential feature of the human nature. Cf. A. Gehlen, *Der Mensch: Seine Natur und seine Stellung in der Welt*, 8th ed., Athenäum Verlag, Frankfurt am Main, 1966, p. 57.

¹⁸⁶ Plato, ‘Laws’, in *Plato in twelve volumes*, vols. 10 & 11, translation R. G. Bury, Harvard University Press, Cambridge MA, 1984, originally *Nóμοι*, around 347 BC, 11.919.

¹⁸⁷ Cf. Aristotle, *Nicomachean Ethics*, ed. by D. Ross, Oxford University Press, Oxford, 1988, originally *ἠθικά Νικομάχεια*, around 350 BC, book II.

¹⁸⁸ Cf. B. Schefold, *Wirtschaftsstile – Band 1: Studien zum Verhältnis von Ökonomie und Kultur*, Fischer, Frankfurt am Main, 1994, p. 137.

¹⁸⁹ P. Koslowski as cited in B. Schefold, ‘Aristoteles: Der Klassiker des antiken Wirtschaftsdenkens’, in *Aristoteles und seine ‘Politik’ – Vademecum zu einem Klassiker des antiken Wirtschaftsdenkens*, Wirtschaft und Finanzen, Düsseldorf, 1992, p. 11.

¹⁹⁰ Cf. Schefold, *Wirtschaftsstile – Band 1*, p. 148.

¹⁹¹ Cf. L. Bauer & H. Matis, *Geburt der Neuzeit: Vom Feudalsystem zur Marktgemeinschaft*, 2nd ed., Deutscher Taschenbuch Verlag, Munich, 1989, p. 15.

profit maximisation did not become prevalent before the arrival of capitalism¹⁹². I will discuss the transition from the traditional to the capitalistic society in a separate chapter. Momentarily this should suffice to indicate that efficiency oriented behaviour was a rather late arrival in the history of thought.

Of course, the maximising-logic has certain advantages. For example, solutions of extremum problems give exact information and are easy to analyse with regard to parameter changes.¹⁹³ It could also be argued that the reason for Aristotle, not thinking in terms of efficiency is that he regarded economics to be a part of ethics rather than as a science of its own¹⁹⁴. If you are concerned with the normative question of the good life, you will not be as much concerned with exact quantitative results as you will be if you are trying to pursue a value-free science. Only then is there a need for an exact criterion and what could this criterion be other than the optimum?

First of all it has to be kept in mind that efficiency can only be a criterion for evaluating the means to achieve a given end. The ends themselves can by their very nature not be subject to efficiency considerations.¹⁹⁵ But for evaluating means, the obvious alternative to maximising would be satisficing.¹⁹⁶

It remains to be shown how and why the focus on efficiency emerged and by doing so to show that efficiency as a guiding principle has a history and has to be considered as a norm-like concept rather than resembling a natural-law, as it often is portrayed in modern economic theory.

3.2 Influences and Developments

This chapter (3.2) is concerned with the analysis of several influences that might have played a significant role in the emergence of efficiency and maximising behaviour as

¹⁹² Cf. J. B. Müller, 'Die Ökonomisierung unserer Lebenswelt', in *Zeitschrift für Religions- und Geistesgeschichte*, no. 56, 2004, p. 332.

¹⁹³ Cf. Samuelson, *Foundations*, p. 21.

¹⁹⁴ Cf. Schefold, 'Aristoteles', pp. 20-1.

¹⁹⁵ Cf. Knobloch, p. 172.

¹⁹⁶ Cf. e.g. the satisficing model of Herbert A. Simon: H. A. Simon, *Models of man*, Wiley, New York, 1957, pp. 250-3.

guiding principles. It does so by starting with the general fact of scarcity and then proceeding in a more or less chronological order of influences from the invention of time measurement implements to relatively recent developments in socio-biology.

3.2.1 Scarcity

Scarcity means that the existing amount of goods is less than the desired amount of goods or in other words:¹⁹⁷

$$\frac{\text{Existing amount of goods}}{\text{Desired amount of goods}} < 1 \quad (3.1)$$

In modern economics it is assumed that the demand for goods is insatiable whereas the means are limited. As Robbins' definition of economics¹⁹⁸ shows, scarcity has become the starting point for economic considerations.

If we live in a world of scarcity, it is clear that we have to economise wisely, not wasting our scarce resources,¹⁹⁹ and consequently, already the scarcity postulate seems to be a reason for the logic of efficiency.

Interestingly, scarcity does not seem to have diminished due to more and more efficient means of production. Sahlins for example called the preagricultural economy 'the original affluent society'²⁰⁰. In the modern economy both numerator and denominator of equation 3.1 seem to have increased. It cannot be decided if a society is affluent, in the sense of being able to easily satisfy its wants, by the number of goods available alone. The hunter-gatherer societies had scarce wants and relatively plentiful means, and hence Sahlins came to his conclusion of the affluent preagricultural society.²⁰¹

The focus of modern economics on scarcity is not altogether satisfactory. As Schumpeter showed, the entrepreneur is not only managing scarce resources, he is creatively

¹⁹⁷ Cf. D. Dickertmann, *Grundlagen und Grundbegriffe der Volks- und Finanzwirtschaft*, ed. by Bildungsdienst und Sozialwerk des Deutschen Beamtenbundes e.V., Brilon, 1986, p. 31.

¹⁹⁸ Cf. Robbins, *An essay*, p. 16.

¹⁹⁹ This is of course even more true for non-regenerative resources.

²⁰⁰ Sahlins, pp. 1-2.

²⁰¹ Cf. *ibid.*, p. 13.

bringing new realities into existence.²⁰² This seems to be a more fruitful approach to economics in general.

3.2.2 Medieval Monasteries

Medieval Benedictine and Cistercian communities constitute an early influencing factor towards the efficiency oriented western culture. The Rule of Saint Benedict organises the monastic lives of Benedictine orders. It postulates a life according to the justice of God rather than a life focused on efficiency and the ordered accumulation of goods.²⁰³ Monks are not allowed to own any property²⁰⁴ other than that which the abbot assigns to them²⁰⁵, and the abbot in turn aims at the fulfilment of demand²⁰⁶. The ideal of monastical life is frugality²⁰⁷ and monks are supposed to always avoid immoderacy²⁰⁸. When selling goods, Benedictines do not aim at a profit, they are even urged to set prices below the market price in order to glorify God.²⁰⁹ If, however, they obtain a surplus, it is generally used to beautify churches and liturgy.²¹⁰

The first orders of Cisterciansy were formed in France at the end of the 11th century as a result of a return to a stricter observance of the Rule of Saint Benedictine. On the one hand this involved a concentration on manual labour and self-sufficiency on the other hand a focus on frugality and thus an ascetic tendency.²¹¹ As a result, Cistercians were able and willing to produce a surplus which is not consumed. Rather, surpluses were being reinvested, augmenting the capital basis of Cistercian monasteries and resources

²⁰² Cf. P. Koslowski, 'The categorical and ontological presuppositions of Austrian and neoclassical economics', in A. Bosch et al. (ed.), *General equilibrium or market process*, Mohr Siebeck, Tübingen, 1990, p. 19, and cf. J. A. Schumpeter, *Theorie der wirtschaftlichen Entwicklung: Eine Untersuchung über Unternehmervergewinn, Kapital, Kredit, Zins und den Konjunkturzyklus*, 3rd ed., Duncker & Humblot, Munich et al., 1931, first published in 1912, pp. 110-1.

²⁰³ Cf. Benedictus de Nursia, *The Rule of Saint Benedict*, translation Abbot Parry, Fowler Wright Books, Leominster, 1990, ch. 2, no. 35.

²⁰⁴ Cf. *ibid.*, ch. 33, no. 1.

²⁰⁵ Cf. *ibid.*, ch. 33, no. 5.

²⁰⁶ Cf. *ibid.*, ch. 34, no. 1.

²⁰⁷ Cf. *ibid.*, ch. 39, no. 10.

²⁰⁸ Cf. *ibid.*, ch. 39, no. 7.

²⁰⁹ Cf. *ibid.*, ch. 57, nos. 7-9.

²¹⁰ Cf. B. Nagel, *Die Eigenarbeit der Zisterzienser: Von der religiösen Askese zur wirtschaftlichen Effizienz*, Metropolis, Marburg, 2006, p. 71.

²¹¹ Cf. *ibid.*, p. 20.

were used for the permanent improvement of technology.²¹² In addition, Cistercians developed an elaborate system of bookkeeping to analyse costs and revenues and to make predictions for future periods of production.²¹³ Even two centuries before the invention of mechanic time measuring implements, Cistercians adopted a mode of time economising, ordering their monastic lives according to hour glasses.²¹⁴

The first reactions to the economic success of the Cistercians were mistrust and envy. The secular population rarely had contact with the monks except for in economic matters. Cistercians made an appearance as competitors in negotiations regarding the purchase of land and as competitors and trading partners on market places.²¹⁵ Nevertheless, the economic superiority of the Cistercians evoked imitators. In particular, secular rulers lacked the bookkeeping and management skills of Cistercian monasteries. Therefore, more and more often, Cistercian experts were lent to secular institutions like city or territory governments.²¹⁶ It has to be assumed that the regular and time economising forms of production that Cistercians adopted, influenced secular producers for example via the contact on market places.²¹⁷ Furthermore, the surpluses of Cistercian monasteries served to supply the growing urban population and also the rural population during famines. In times when the rural population could not sustain itself and it had no financial reserves in order to buy the Cistercian surplus, people could only survive by borrowing, hoping to pay back from their own surpluses in the future. Thus, the Cistercian surplus production worked as an incentive to an increase in production and to utilise potentials for efficient techniques of production. In addition, secular farmers used to produce cooperatively. Since they therefore had to share the fruits of technological improvements, incentives for innovations were low. Cistercian monasteries, however, could keep all gains in productivity to themselves and thus had very high incentives to innovate. It can

²¹² Cf. Nagel, pp. 36, 60-1.

²¹³ Cf. *ibid.*, p. 42. Cf. R. Schneider, *Vom Klosterhaushalt zum Stadt- und Staatshaushalt: Der zisterziensische Beitrag*, Hiersemann, Stuttgart, 1994, pp. 11-24, 28-86, 104-25.

²¹⁴ Cf. Nagel, p. 43.

²¹⁵ Cf. G. Duby, *Krieger und Bauern: Die Entwicklung der mittelalterlichen Wirtschaft und Gesellschaft bis um 1200*, Suhrkamp, Frankfurt am Main, 1984, p. 288.

²¹⁶ Cf. Schneider, p. 158.

²¹⁷ Cf. L. Mumford, *Der Mythos der Maschine: Kultur, Technik und Macht*, Europa-Verlag, Wien, 1974, p. 303.

be assumed that the success of Cistercian innovative practices induced secular producers to imitate them.²¹⁸

Over time, the spiritual motivation of the norm of manual labour in combination with the ideals of self-sufficiency and frugality was altered to a norm of efficiency, aiming at the optimal sale of a maximal surplus. Manual labour had become connected with a moral value²¹⁹ but was no longer a spiritually ascetic activity alone, but a rational, economic occupation. Efficiency slowly obtained priority over spirituality.²²⁰ It is important to keep in mind that even though the community was very prosperous, the individual monk was impecunious.²²¹ The striving for efficiency was not yet connected to self-interested behaviour. Later, with the decline of Cisterciansy, medieval guilds continued to assign moral values, rooted in religion, to manual labour;²²² now, however, pursuing individual wealth.

3.2.3 Chronometry

‘Time is money’²²³. This famous expression was coined in 1748 by Benjamin Franklin, but it could also serve as a slogan for the 21st century. However, it marks a completely new development, since time did not play an equally important role in traditional societies.²²⁴

Originally, in societies without division of labour, there was no need for the development of a concrete time measuring system. Days were unequally long, depending on the light-dark rhythm in the course of the seasons.²²⁵ The amount of holidays was enormous

²¹⁸ Cf. Nagel, pp. 60-1.

²¹⁹ Cf. Mumford, p. 304.

²²⁰ Cf. Nagel, p. 73.

²²¹ Cf. *ibid.*, p. 76.

²²² Cf. Mumford, pp. 310-1.

²²³ B. Franklin, ‘Advice to a young tradesman. Written by an old one’, in *Early American Imprints*, Series 1, no. 9119, 1762, p. 1.

²²⁴ Cf. A. Maurer et al., ‘Die Dominanz der Ökonomie: Reflexionen zur Ökonomisierung verschiedener Lebensbereiche in modernen Gesellschaften’, in H. Reimann (ed.), *Probleme moderner Gesellschaften*, Westdeutscher Verlag, Opladen, 1994, p. 99.

²²⁵ Cf. J. P. Rinderspacher, ‘Mit der Zeit arbeiten. Über einige grundlegende Zusammenhänge von Zeit und Ökonomie’, in R. Wendorff (ed.), *Im Netz der Zeit*, Hirzel, Stuttgart, 1989, p. 92.

in precapitalistic times and workers had no particular need to rush.²²⁶ This did not change until the invention of adequate time measuring implements. Only then did hours become equally long and they found their way into the daily routine of people with the appearance of mechanical clocks that indicated the time with bells, which was only at the beginning of the 14th century.²²⁷ Being equally long, hours could then be used as arithmetic units and could even be expressed in monetary units.²²⁸ Consequently, time was used to control working hours and also to calculate costs per unit.²²⁹

From then on, time became a scarce resource and thus valuable.²³⁰ After ‘producing’ disposable time became an economic activity, time became even costly.²³¹ According to Max Weber’s Protestant Ethic, wasting your time was, as a matter of fact, even the most serious sin.²³² Franklin’s expression is the culmination of this development. Not only do you spend money when you actually buy something, but also simply consuming leisure time is costly, since you could do something else and earn money. Time finally became a scarce good that has to be efficiently economised.

3.2.4 Physics

There has always been a vague idea of the thriftiness of nature, that nature always takes the shortest way.²³³ The first scientific expression in form of a law of nature, however, was made by Pierre Louis Moreau de Maupertuis (1698-1759). His work is usually seen as the first formulation of the principle of least action.²³⁴ There were predecessors to Maupertuis: Pierre de Fermat’s principle of least time for example is a generalisation of Heron’s principle that light takes the shortest possible way between two points.²³⁵ Mau-

²²⁶ Cf. Sombart, p. 37.

²²⁷ Cf. G. Dohrn-van Rossum, ‘Schlaguhr und Zeitorganisation’, in R. Wendorff (ed.), *Im Netz der Zeit*, Hirzel, Stuttgart, 1989, p. 52.

²²⁸ Cf. Maurer, pp. 99-100.

²²⁹ Cf. Dohrn-van Rossum, p. 60.

²³⁰ Cf. Maurer, p. 100.

²³¹ Cf. Rinderspacher, p. 103.

²³² Cf. Weber, *Die protestantische Ethik*, p. 183.

²³³ Cf. H. Pulte, *Das Prinzip der kleinsten Wirkung und die Kraftkonzeptionen der rationalen Mechanik*, Steiner, Stuttgart, 1989, p. 97.

²³⁴ Cf. *ibid.*, p. 49.

²³⁵ Cf. *ibid.*

pertuis, trying to resolve a contradiction between mathematics and philosophy, introduced the concept of ‘action’ and stated that a corpuscle of light between two given points A and B always takes the way that requires the least action. He gave his approach a mathematical formulation and defined action as $\sum_i v_i s_i$, where s_i stands for the distance and v_i for the speed.²³⁶ His main accomplishments lie in the mathematical formulation and in the fact that his reformulation made the application of the principle of least action applicable to different fields as well. In fact, Maupertuis himself claimed the status of a meta-law for the principle of least action:

‘Les loix du Mouvement & du Repos déduites de ce principe, se trouvant précisément les memes qui sont observées dans la Nature: nous pouvons en admirer l’application dans tous les Phenomènes. Le mouvement des Animaux, la végétation des Plantes, la révolution des Astres, n’en sont que les suites & le spectacle le l’Univers devient bien plus grand, bien plus beau, bien plus digne de son Auteur, lors qu’on sait qu’un petit nombre de loix, le plus sagement établies, suffisent à tous ces mouvements.’²³⁷

Maupertuis’s formulation is actually a strict minimum and no maximum-principle.²³⁸ Nevertheless what is relevant in this context is that he saw the economic principle at work everywhere in nature.

17th century physics is thus completely consistent with the philosophy of Gottfried Wilhelm Leibniz (1646-1716). Leibniz saw the ultimate goal of the universe in maximising existence.²³⁹ God decides to create the best of all possible worlds and by that a maximum of essence with a minimum of energy and hence follows the principle of compossibility; that is, the compatibility of essences and individuals in the world.²⁴⁰ Accordingly, the maximum principle of economics is of metaphysical origin.²⁴¹ Leibniz,

²³⁶ Cf. Pulte, p. 53.

²³⁷ P. M. de Maupertuis, ‘Les loix du mouvement et du repos’, in *Histoire de l’académie royale des sciences et belles-lettres de Berlin*, vol. 1746, pp. 286-7. ‘The laws of motion and rest derived from this principle are precisely the same as those observed in nature: We can admire the applications of this principle in all phenomena. The movement of animals, the growth of plants, the paths of the stars, all are consequences of this principle. The spectacle of the universe seems all the more grand and beautiful and worthy of its creator, when one considers that it is all derived from a small number of laws laid down most wisely, which are sufficient for all these movements.’ (translation: author).

²³⁸ Cf. Pulte, p. 103.

²³⁹ Cf. P. Koslowski, ‘Universale Ökonomie als Ontologie und der Theorieimperialismus der Ökonomie in der Soziobiologie und Bioökonomie’, in P. Koslowski (ed.), *Wirtschaftsethik – Wo ist die Philosophie?*, Physica, Heidelberg, 2001, p. 12.

²⁴⁰ Cf. P. Koslowski, ‘Maximierung von Existenz: Leibniz’ Theorie der besten aller möglichen Welten und die Wirtschaftstheorie’, in *Studia Leibnitiana*, vol. 19, no. 1, 1987, pp. 55-6.

²⁴¹ Cf. *ibid.*, p. 57.

in line with 17th century science, was the first to not only search for ‘the Good’ but for ‘the Best’ and to demand an explicit mathematical proof of it.²⁴² The imperialism of economics should therefore not be surprising if you accept that the economic principle is not only binding for firms and enterprises but is actually the metaphysical foundation of the world we live in.²⁴³ It should be noted that Leibniz still was aware of the danger of a mistaken anthropocentrism in this context. For him it was clear that human beings are not the only maximands in the metaphysical process of maximisation. The optimisation of totality, however, is only possible for an infinite consciousness and not a reasonable project for limited human minds.²⁴⁴

Analogies from physics and especially mechanics widely influenced economics. For some economists, analogies from physics are even essential to economic theory, at least for its neoclassical tradition.²⁴⁵ Besides the principle of least action several other analogies are common: Pareto for example suggested that the second law of thermodynamics has an important application to distribution theory in economics. According to the theory, redistribution of wealth necessarily involves a loss of total wealth.²⁴⁶ In physics, the second law of thermodynamics states that it is impossible to convert heat completely into work in a cyclic process, and consequently a perpetual motion machine is impossible.²⁴⁷ Walras observed that physics and economics deal with different subject-matters. Physics deals with ‘external’, publicly observable phenomena whereas economics deals with ‘internal’ phenomena which are of a psychological nature and thus not publicly observable. However, he was of the opinion that since both kinds of phenomena can be quantified in principle, they can therefore also be subject to mathematical methods. He concluded that economics and mechanics are both mathematical sciences.²⁴⁸ As in mod-

²⁴² Cf. Koslowski, ‘Maximierung von Existenz’, p. 58.

²⁴³ Cf. Koslowski, ‘Universale Ökonomie’, p. 13.

²⁴⁴ Cf. Koslowski, ‘Maximierung von Existenz’, p. 67.

²⁴⁵ Cf. P. Mirowski, *More heat than light*, Cambridge University Press, Cambridge UK, 1991, reprint of 1st ed. 1989, p. 368.

²⁴⁶ Cf. Pareto, ‘Anwendungen der Mathematik’, p. 1119.

²⁴⁷ Cf. ‘Thermodynamics’, in *Encyclopædia Britannica*, retrieved: 23 February 2012, <<http://www.britannica.com/EBchecked/topic/591572/thermodynamics/258544/The-second-law-of-thermodynamics>>.

²⁴⁸ Cf. L. Walras, ‘Économique et Mécanique’, in P. Dockès et al. (ed.), *Mélanges d’économie politique et sociale – Auguste et Léon Walras œuvres économiques complètes*, Économica, Paris, 1987, originally published in 1909, pp. 339-40.

ern definitions of economics, he put an emphasis on the methods of economics rather than on the subject-matter itself. Nicholas Georgescu-Roegen went so far as to say that ‘Any system that involves a conservation principle (given means) and a maximization rule (optimal satisfaction) is a mechanical analogue.’²⁴⁹ That includes substantial parts of modern economic theory.

3.2.5 The Transition from Feudalism to Capitalism

Feudalism just like capitalism is based on a specific type of the division of labour. In Feudalism the landlord owns the land as tenure from the king and the landlord rents the land to a vassal who has to pay the rent in form of drudgery or in kind.²⁵⁰ In contrast, in capitalism, there is a class of capitalists who own the means of production, and a class of workers without property.²⁵¹

There are different views on why the transition from Feudalism (approx. 1000 to 1525²⁵²) to capitalism occurred. Basically one can differentiate on the one hand the materialistic view of history that states that it was an inevitable development and on the other hand the view that the shift was due to the emergence of a particular capitalistic spirit or mind-set.²⁵³ Factors that probably have been of major importance for the emergence of capitalism were firstly, new technologies, secondly, the appearance of a free class without property, and thirdly, new and growing markets (especially in colonies), and fourthly beginning capital-accumulation.²⁵⁴ In this context, however, the reasons for the transition from feudalism to capitalism are of secondary importance; particularly relevant are the effects the transition had on the pervasiveness of efficiency-oriented thinking.

²⁴⁹ N. Georgescu-Roegen, *The entropy law and the economics process*, Harvard University Press, Cambridge MA et al., 1981, pp. 318-9.

²⁵⁰ Cf. Bauer & Matis, p. 55.

²⁵¹ Cf. Sombart, p. 319.

²⁵² Cf. Bauer & Matis, pp. 56-8.

²⁵³ Cf. B. Schefold, ‘Geschichte der Wirtschaftstheorie und Wirtschaftsgeschichte: Einleitung’, in *Jahrbuch für Wirtschaftsgeschichte*, no. 1, 2009, p. 18.

²⁵⁴ Cf. J. Kromphardt, *Konzeptionen und Analysen des Kapitalismus*, 4th ed., UTB, Göttingen, 2004, pp. 57-71.

‘Tradition and inherited status give way to competition and merit’²⁵⁵: Whereas in traditional and feudalistic societies everyone was supposed to have an income according to status, that is no longer the case in capitalistic societies. Furthermore, ‘productive work, household consumption or work, community or government activity’ were not considered to be economic activities but ‘feudal obligations or traditional or religious duties’. They ‘were done because it was right and normal to do them or because they pleased God or the gods or because they earned or conferred status. They were not done out of economic motivation.’²⁵⁶ Only with the arrival of capitalism did that change and as a result, for the first time in history, profit, income, and acquisitions became ends in themselves. In capitalism, maximising profit is even considered to be virtuous.²⁵⁷ Feudalistic societies were focused on preservation and continuity, since the social order was understood to be created and intended by God.²⁵⁸ This is typical for societies based on agricultural production. Because of the high fluctuations in output, economic phenomena did not seem to be rationally controllable. Such a system would have to be primarily concerned with preservation and continuity.²⁵⁹ Only with a relatively constant output could humans start to see the production process as controllable and become interested in the maximisation of the output of production.

Especially important seems the breakdown of traditional feudal relationships. Fealty and bondage were replaced by freedom. In the feudal system, duties were chosen with respect to the poorest (the marginal) piece of land. For everyone but the peasant who worked on the marginal land, there was no urge for efficiency. After the breakdown of the feudal system, peasants had to compete among themselves on a free market, and only those who managed their land efficiently could survive.²⁶⁰

²⁵⁵ E. J. Nell, ‘On the history of economic theory and the emergence of capitalism’, in *Jahrbuch für Wirtschaftsgeschichte*, no. 1, 2009, p. 103.

²⁵⁶ Ibid., p. 105.

²⁵⁷ Cf. Müller, p. 332.

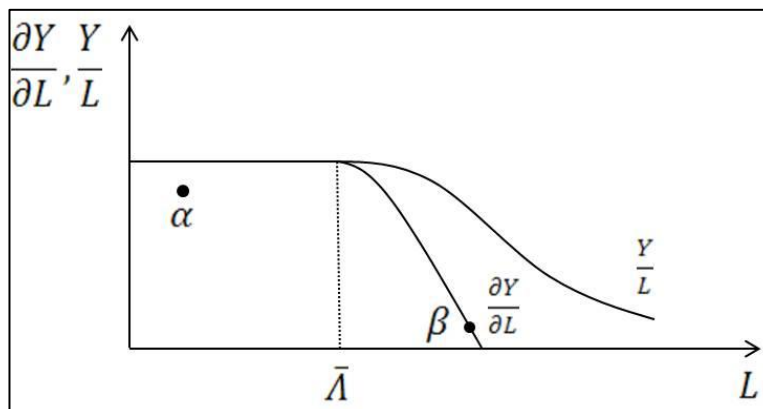
²⁵⁸ Cf. Bauer & Matis, p. 15.

²⁵⁹ Cf. ibid., pp. 32-3.

²⁶⁰ Cf. Nell, pp. 117-8.

A different view of the inefficiency of feudalistic production has been formulated by Bertram Schefold:²⁶¹

Figure 1: Inefficiency of Feudalism



Source: Cf. B. Schefold, *Lecture notes for the introductory economics course at the Goethe University Frankfurt*, retrieved 23 February 2012, <<http://www.wiwi.uni-frankfurt.de/profs/schefold/>>, Part B, p. 234.

Since the land Λ is divided into the land that the lord used for his own sustenance and the fief; that is, the land that the vassals cultivated, there were two different modes of agricultural production. On the one hand, the vassal lived at subsistence level and attempted to maximise the output of his piece of land regardless of his own effort. In figure 1 this is depicted by point β , a situation in which the marginal product of labour tends towards zero. On the other hand, work on the lord's land is performed by the vassals. For them every hour spend working on the lord's land means one hour less that they could work on their own. For this reason and also since production on the lord's land benefited solely the lord, the vassals had little motivation to work efficiently. Point α in figure 1 shows how the actual production on the lord's land is below the production possibilities with given labour input. Also, the lord's land is not completely cultivated, as would be the case at \bar{L} . The output could easily be increased by cultivating more of the lord's land. However, the feudal lord had no interest in cultivating the land fully and in organising production efficiently, they preferred to use the remaining land for other purposes, for instance for hunting.

²⁶¹ Cf. B. Schefold, *Lecture notes for the introductory economics course at the Goethe University Frankfurt*, retrieved 23 February 2012, <<http://www.wiwi.uni-frankfurt.de/profs/schefold/>>, Part B, p. 234. Here, Schefold refers to Joan Robinson.

Why did these obviously inefficient modes of production prevail? It is not the case that the lords behaved irrationally; they simply followed a different kind of rationality. They had an interest in preserving the existing power structure, and keeping the vassals as villains bound to their small piece of land.

3.2.6 The Separation of Household and Firm

A further development is the separation of household and firm, as it is characteristic of capitalism. Strictly speaking, this is another aspect of the transition from feudalism to capitalism, but since it is of major importance for the analysis of this chapter, it deserves a section of its own.

There were internal and external influences that lead to the disintegration of the household as the unit of common production and consumption. Internally, with the increasing differentiation of skills and wants of the individuals, while at the same time the economic opportunities were growing, the close bond between the individual and the household community became intolerable from the perspective of the individual. Externally, the state had an interest in the disintegration of households, since this augmented its possibility to levy taxes.²⁶² Moreover, the development of a rational legal framework, including formally regulated wage contracts was conducive to the local separation of consumption and production.²⁶³

According to Max Weber, however, the decisive development was the division of household and firm regarding bookkeeping, rather than the spacial aspect.²⁶⁴ Weber identified several cases in the history in which household and firm were locally separated. Separate bookkeeping on the other hand is a distinct phenomenon of modern capitalism. This was accompanied by a generally growing sense of calculation (*Rechenhaftigkeit*), even in locally integrated households. In a monetised economy, this meant that the balance of individual use and contribution became obvious to the members of a

²⁶² Cf. Weber, *Wirtschaft und Gesellschaft*, p. 226.

²⁶³ Cf. B. Schefold, 'A contribution to Weber's theory of modern capitalism. Amortization according to Sraffa as a rational substitution of missing markets', in N. Salvadori & C. Gehrke (ed.), *Keynes, Sraffa, and the criticism of neoclassical theory: Essays in honour of Heinz Kurz*, Routledge, London, 2011, p. 180.

²⁶⁴ Cf. Weber, *Wirtschaft und Gesellschaft*, pp. 229-30.

household.²⁶⁵ In the original form of household-communism, such mutual offsetting did not exist²⁶⁶ and was even impossible, since internal prices of goods produced in the household and consumed internally did not exist²⁶⁷. As a consequence, the household was reduced to being a place of common consumption, while production takes place externally.²⁶⁸

With the separation of household and firm, two distinct spheres of human life come into existence: In the sphere of the firm, individuals maximise their profit, whereas in the sphere of the household, individuals aim at the fulfilment of demand.²⁶⁹ Therefore, two different forms of rationality could develop. In his vocation, an individual can behave strictly economically rational, whereas in the household other rationalities prevail: compassion, togetherness, love, justice, need satisfaction, redistribution, etc.

3.2.7 Utilitarianism & Marginal Revolution

Classical utilitarianism ‘defines the rightness of acts or rules as maximisation of aggregate utility’.²⁷⁰ This is best captured in Bentham’s famous expression of the ‘greatest happiness principle’: ‘[I]t is the greatest happiness of the greatest number that is the measure of right and wrong . . .’²⁷¹.

Utilitarianism as a moral principle has three basic elements: welfarism, sum ranking and consequentialism. In this context ‘welfarism’ means that the goodness of a state of affairs is to be derived only from utility information about that state. ‘Sum ranking’ means that the utility information consists only of the sum-total of all the utilities in the rele-

²⁶⁵ Cf. Weber, *Wirtschaft und Gesellschaft*, p. 227.

²⁶⁶ Cf. *ibid.*, p. 214.

²⁶⁷ Cf. *ibid.*, p. 46.

²⁶⁸ Cf. *ibid.*, p. 226.

²⁶⁹ Cf. *ibid.*, pp. 63-4. In modern terms: Firms maximise profit and households maximise their utility. Cf. Schefold, ‘A contribution’, p. 180.

²⁷⁰ A. Buchanan, *Ethics, efficiency, and the market*, Clarendon Press, Oxford, 1985, p. 55.

²⁷¹ J. Bentham, *A Fragment on Government, being an examination of what is delivered on the subject of government in general*, T. Payne, London, 1776, p. ii. Or: ‘By the principle of utility is meant that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question: or, what is the same thing in other words, to promote or to oppose that happiness. I say of every action whatsoever; and therefore not only of every action of a private individual, but of every measure of government.’ J. Bentham, *An introduction*, chapter 1, ii.

vant state and consequentialism assesses every choice according to its consequences.²⁷² A bigger sum of total utility is better than a smaller one. Consequently, '[a]ccording to utilitarianism, my moral duty is to maximize happiness'²⁷³. Utilitarian ethics can therefore be seen as a formal ethics of efficiency.²⁷⁴

This is the philosophical foundation of the marginal school in economics. Accordingly, for Jevons the task of economics is to 'maximise pleasure'²⁷⁵. Similarly Friedrich von Wieser: Keeping the subjective theory of value of the marginalists in mind, the aim of economics must be the highest utilisation of economic goods²⁷⁶, in order to obtain a welfare maximum for society.²⁷⁷

One central concept of marginalism in the analysis of consumer choice is the maximisation principle. A consumer will choose different goods until the marginal utility he derives from them are equal. Once the marginal utility for every monetary unit spent is equal for each possible use, the consumer has reached an optimum. The law of diminishing marginal utility guarantees that such an optimum exists.²⁷⁸ This maximisation principle and the idea that competition indeed brings about such an optimum, are the basis of neoclassical theory.²⁷⁹ It follows a utilitarian ethic²⁸⁰ in which the maximisation of a utility function is the central concept.²⁸¹ The realisation of the ordinal nature of utility made it impossible to construct a social utility function in the sense of a sum-total of individual utility values. This, however, did not lead to

²⁷² Cf. A. Sen, *On ethics and economics*, Oxford University Press, New Delhi, 2008, first published Oxford 1987, p. 39.

²⁷³ R. Crisp, 'Introduction', in J. S. Mill, *Utilitarianism*, ed. by R. Crisp, Oxford University Press, Oxford, 1998, first published in 1863, p. 10.

²⁷⁴ Cf. D. Birnbacher, 'Neue Entwicklungen des Utilitarismus', in B. Bievert (ed.), *Ethische Grundlagen der ökonomischen Theorie*, Campus, Frankfurt am Main, 1989, p. 15.

²⁷⁵ W. S. Jevons, *The theory of political economy*, 5th ed., A. M. Kelley, New York, 1965, first published 1871, p. 37.

²⁷⁶ Cf. F. von Wieser, 'Grenznutzen', in F. von Wieser, *Gesammelte Abhandlungen*, ed. by F. A. Hayek, Mohr Siebeck, Tübingen, 1929, p. 88.

²⁷⁷ Cf. Hagel, p. 147, referring to von Wieser, p. 88.

²⁷⁸ Cf. M. Blaug, *Systematische Theoriegeschichte der Ökonomie*, Nymphenburger Verlagshandlung, Munich, 1975, p. 16.

²⁷⁹ Cf. *ibid.*, pp. 16-7.

²⁸⁰ Cf. Hagel, p. 12.

the abandonment of utilitarian ideas but to the paretian reformulation in which the social welfare maximum is defined as a Pareto-optimum, as a state in which it is impossible to make any individual better off without making any other worse off.²⁸² Thus, the central element of modern neoclassical theory is maximisation.

3.2.8 Mathematisation of Economic Theory

Physics defines its equilibria by maximum principles, that being the most concise and accurate method to analyse for example the paths of particles.²⁸³ It is not surprising that economics seeing itself as 'social physics'²⁸⁴ desires the same accuracy in its methods. It tries to accomplish this by the use of mathematical methods. With the ongoing progress and increasing complexity of mathematical theory, the range of applications in economic theory increases. The story of the mathematisation of economics runs parallel to the adoption of metaphors from physics.²⁸⁵ Free human beings with indeterminate options to choose from do not fit into an atomised, deterministic view of the economic world and hence man is conceived as a 'pleasure machine'²⁸⁶, which allows the application of mechanical terms and mathematical reasoning. The neoclassical program corresponds to the worldview of Laplace,²⁸⁷ who thought that if science only knew the initial states of all particles and all natural laws, nothing would be uncertain, everything could be predicted²⁸⁸. Physics has given up this thought a long time ago, in general equilibrium economics it is still prevalent. The danger is in particular a false sense of certainty in making any kind of prediction.

²⁸¹ Cf. E. Streissler, 'Kritik des neoklassischen Gleichgewichtsansatzes als Rechtfertigung marktwirtschaftlicher Ordnungen', in E. Streissler (ed.), *Zur Theorie marktwirtschaftlicher Ordnungen*, Mohr Siebeck, Tübingen, 1980, p. 40.

²⁸² Cf. A. Bohnen, *Die utilitaristische Ethik als Grundlage der modernen Wohlfahrtsökonomik*, Schwartz, Göttingen, 1964, p. 81.

²⁸³ Cf. P. Mirowski, 'Physics and the "Marginalist Revolution"', in *Cambridge Journal of Economics*, no. 8, 1984, p. 371.

²⁸⁴ M. A. Clark, *Economic theory and natural philosophy. The search for the natural laws of the economy*, Edward Elgar, Aldershot et al., 1992, p. 135.

²⁸⁵ Cf. W. Ötsch, 'Die mechanistische Metapher in der Theoriegeschichte der Nationalökonomie', *Johannes Kepler Universität Linz Working Paper no. 9313*, Linz, 1993, pp. 32-3.

²⁸⁶ F. Y. Edgeworth, *Mathematical psychics: An essay on the application of mathematics to the moral sciences*, Kegan Paul, London, 1881, p. 15.

²⁸⁷ Cf. Ötsch, 'Die mechanistische Metapher', p. 25.

²⁸⁸ Cf. P. S. Laplace, *A philosophical essay on probabilities*, J. Wiley, New York, 1902, first published in French 1814, p. 4.

General equilibrium theory appears to be the pinnacle of the mathematisation of economics and it shows how central ideas of maximisation are to modern economic thinking. Already in the early formulation of Walras, a general equilibrium is defined as the solution of profit and utility maximisation under constraints.²⁸⁹ And still in the groundbreaking existence proof of Arrow and Debreu a general equilibrium is basically defined by four equations:²⁹⁰ 1. Profit maximisation of firms, 2. Utility maximisation of households, 3. A normalised price vector, 4. The condition that the value of the sum of all excess demands is equal to zero.²⁹¹

In welfare economics even a third fundamental form of maximisation is added: the maximisation of general welfare, in the sense of a Pareto optimum.²⁹²

3.2.9 The Interaction of Economics and Biology

The development of modern economic theory and that of the biological theory of evolution were interdependent. For instance, when Charles Darwin was working on the principles of evolution, he was strongly influenced by the thought of Robert Malthus.²⁹³ Malthus said that every population has a ‘constant tendency to increase beyond the means of subsistence’²⁹⁴, because population if unchecked would increase in a geometrical ratio, whereas the means of subsistence could only be made to increase in an arithmetical ratio.²⁹⁵ Darwin came to two conclusions: Firstly, there has to be some kind of competition or ‘struggle for existence’ among the members of the population if the resources are not sufficient to nourish all individuals. Secondly, whether an individual

²⁸⁹ Cf. K. Arrow, & G. Debreu, ‘Existence of an equilibrium for a competitive economy’, in *Econometrica*, vol. 22, no. 3, 1954, p. 265.

²⁹⁰ Cf. *ibid.*, p. 272.

²⁹¹ 1. y^* maximises $p^* \times y_j$ over the set Y_j , for each j .
 2. x_i^* maximises $u_i(x_i)$ over the set $\{x_i | x_i \in X, p^* \times x_i \leq p^* \times \zeta + \sum_{j=1}^n \alpha_{ij} p^* \times y_j^*\}$.
 3. $p^* \in P = \{p | p \in R^l, p \geq 0, \sum_{h=1}^l p_h = 1\}$.
 4. $z^* \leq 0, p^* \times z^* = 0$.

²⁹² Cf. M. J. Beckmann, ‘The meaning of general equilibrium’, in A. Bosch et al. (ed.), *General equilibrium or market process*, Mohr Siebeck, Tübingen, 1990, p. 60.

²⁹³ Cf. C. Darwin, *The origin of species*, Digireaders, Stilwell, 2007, first published in 1859, p. 50.

²⁹⁴ R. Malthus, *An essay on the principle of population*, vol. 1, Cosimo, New York, 2005, first published London & New York 1798, pp. 6-7.

²⁹⁵ Cf. *ibid.*, pp. 8-10.

succeeds in the struggle for existence or not, is not entirely arbitrary, but dependent on the characteristics of each individual. Different characteristics are unequally successful so that a process of ‘selection’ occurs.²⁹⁶ The analogy between economics and biology is thus the following: In economics individuals pursue their own pleasure or utility, in biology they strive for survival. In both cases the individuals are subject to competition in which usually the ‘fittest’ are successful and survive.²⁹⁷ It seems that nature operates efficiently, always choosing the cheapest option and rejecting wasteful organisms in the process of evolution.²⁹⁸

There is no clear trail in Darwin’s writings, but it seems clear that he was also influenced by Adam Smith²⁹⁹ and other Scottish economists and philosophers³⁰⁰. Darwin’s view appears to be much more optimistic than Malthus’³⁰¹ and hints to a tendency to continuing improvement. As has been already stated, the relationship between economics and biology has been one of mutual influence. In the late 19th century Social Darwinism viewed the market as the ‘most natural form of social organisation’, resembling a process of competition for scarce resources in which only the fittest survive.³⁰² Today, evolutionary economics is an established branch of economic theory³⁰³ and Ghiselin even went so far as to say that economics and biology are both part of a super-science

²⁹⁶ Cf. J. K. Müller & K. P. Sauer, *Evolution der Pflanzen- und Tierwelt: Ursachen und Mechanismen der Evolution*, Beltz Verlag, Tübingen, 1987, p. 12.

²⁹⁷ Cf. R. Hofstadter, *Social Darwinism in American thought*, Beacon Press, Boston, 1974, reprint of the 1st ed. published Philadelphia 1944, p. 144.

²⁹⁸ Cf. *ibid.*, p. 187. Though to me this does not sound very convincing. Ostentatious plumages of birds, for example, are obviously not the cheapest way to attract a partner. It seems rather that wastefulness is a signal for general fitness. But the analysis of the usefulness of different metaphors for economics is the subject of the concluding chapter.

²⁹⁹ Cf. W. Grassie, *Re-reading economics: In search of new economic metaphors for biological evolution*, New York, 2006, retrieved 23 February 2012, <<http://www.metanexus.net/book-review/re-reading-economics-search-new-economic-metaphors-biological-evolution>>.

³⁰⁰ Cf. S. Schweber, ‘The genesis of natural selection-1838: Some further insights’, in *BioScience*, vol. 28, no. 5, 1978, p. 324.

³⁰¹ Cf. Hofstadter, p. 6.

³⁰² Cf. Buchanan, *Ethics*, p. 49.

³⁰³ Cf. U. Witt, ‘Evolutionary economics’, in S. N. Durlauf & L. E. Blume (ed.), *The new Palgrave dictionary of economics*, 2nd ed., Macmillan, Basingstoke, 2008, retrieved 28 March 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_E000295&edition=current&q=Evolutionary%20economics&topicid=&result_number=1>.

‘General Economy’, which he defined as ‘the study of how the availability and utilization of resources affect the structure and activity of organized beings.’³⁰⁴

3.3 Efficiency and Norms

The concept of normativity is difficult to apply to the field of economics. To give a brief analysis of the normativity of efficiency, this chapter uses only the widely known definition of Peter Stemmer, however, the same analysis could be carried out by means of different approaches to the concept with possibly different results.

Stemmer defines three types of obligations (*Drei Arten des Müssens*): Firstly, obligations in the sense of natural laws. In that case, one event necessarily leads to another. It is not possible that something else follows from the initial event and the same ‘obligation’ would still persist even without the existence of any living beings. This kind of obligation is not normative.³⁰⁵ Secondly, there are logical obligations – obligations of consistency. For instance, if you assume A and B then you also have to assume C. In this case you ought to do something but you could also do otherwise. This kind of obligation is also not normative.³⁰⁶ And finally, normative obligations, which are defined by sanctions. You ought to do X because otherwise you will be sanctioned.³⁰⁷

In what sense now is it possible to speak of efficiency as a norm? Efficiency is certainly no natural law, such that it would be impossible to act in an inefficient way. Given the basic assumption of neoclassical theory, scarcity, it is, however, possible to speak of efficiency as a logical obligation. If we assume that resources are scarce, you should try not to waste any. Especially, if we adopt Edgeworth’s picture of man as a ‘pleasure machine’ for a moment, efficiency would also be a logical obligation. Given the choices that an individual has, her preferences, constraints and the possible outcomes, she will choose the optimal option. It is clear that this view in fact excludes any free choice. If an individual only acts as a maximising machine, only mechanic transformations of

³⁰⁴ M. T. Ghiselin, ‘Principles and prospects for general economy’, in G. Radnitzky (ed.), *Economic imperialism*, Paragon House, New York, 1987, p. 22.

³⁰⁵ Cf. P. Stemmer, *Normativität: Eine ontologische Untersuchung*, de Gruyter, Berlin, 2008, p. 16.

³⁰⁶ Cf. *ibid.*, pp. 17-8.

³⁰⁷ Cf. *ibid.*, pp. 18-22.

known relationships between parameters are carried out,³⁰⁸ no free choices. Under the assumption of perfect competition, efficiency is also a normative obligation. Since the maximum profit under perfect competition is zero, firms that do not maximise their profits will go bankrupt.

What about efficiency as a normative concept for the curriculum of economics as a science? We have seen that efficiency has normative aspects for the entrepreneur in his practical economic activity. Is efficiency also normative in the sense that an economist ought to base his theoretical models on assumptions of efficient behaviour? Again, efficiency is clearly no natural law for an economist. It is possible to write a research-article without using the concept of efficiency. Also, efficiency is not generally a logical obligation. It might, however, be one in certain contexts. If the research question is to find the profit maximising output of a firm, you will need to use the concept of efficiency. In this case, of course, efficiency is already part of the question. Also, if you are looking for the 'optimal' output, efficiency is necessarily involved. If you would ask for the break-even point, efficiency would only be indirectly involved. This already hints to the nature of efficiency in the economic curriculum as the rules of the game, rather than a norm. If economists decide to talk only about efficiency, it will consequently be the central element of economic theory. Economists could clearly decide to do otherwise, to set up different rules of the game and to consider also concepts like satisficing behaviour.

Finally, there is also a normative side to the concept of efficiency in the economic curriculum. Because, if the rules of the game are as they are, academic journals will only accept publications that use the concept of efficiency. If you do not play by the rules of the game, you will be sanctioned by being excluded from ways to publish your research work and thus from the scientific community.

³⁰⁸ Cf. Koslowski, 'The categorical and ontological presuppositions', pp. 5-6.

3.4 Metaphors and Efficiency

Economics as a science did not develop its own language, but always borrowed metaphors and analogies from natural sciences.³⁰⁹ Metaphors are pictographic comparisons that use similar characteristics to describe something unknown by something known. The word metaphor derives from the greek *metaphéreîn*, which means transfer, to bear. By using a metaphor, insights from one field of knowledge are being transferred into another one.³¹⁰ Originally, metaphors in economics were taken from medical science, later from physics and since recently from evolutionary biology.

Francois Quesnay is probably the most famous example of someone who introduced metaphors from medical science to economics. His *tableau économique* is often seen as an analogy to the human blood circulation,³¹¹ although some authors criticise this interpretation and propose that a mechanistic interpretation of Quesnay's analogy would be more appropriate to his original intentions.³¹²

For most of the history of economic thought, analogies from physics, and mechanics in particular, have been the most common ones. The physiocrats, being deeply influenced by Descartes, saw the economy as clockwork. A metaphor that emphasises an external manipulator that for example winds up the clock.³¹³ Later on, classical theory under the influence of Newton, had the picture of scales or the planetary system in mind. This view is in stark contrast to the absolutistic view of society, understanding the economy as a self-regulating system. Consequently, it is the task of the economist to reveal law-like causalities in the economy. Political, ethical or sociological considerations are to be excluded from the work of the economist.³¹⁴ Neoclassical theory and especially general

³⁰⁹ Cf. B. Schefold, 'Antonio Serra: der Stifter der Wirtschaftslehre?', in *Vademecum zu einem unbekannten Klassiker, Commentary of Antonio Serra: Breve trattato delle cause, che possono far abbondare li regni d'oro, & argento*, Wirtschaft und Finanzen, Düsseldorf, 1994, p. 27.

³¹⁰ Cf. W. Ötsch, 'Bilder der Wirtschaft: Metaphern, Diskurse und Hayeks neoliberales Hegemonialprojekt', *Johannes Kepler Universität Linz Working Paper no. 0709*, Linz, 2007, p. 3.

³¹¹ Cf. D. G. Callejas, 'Biology and economics: Metaphors that economists usually take from biology', in *Ecos de Economia*, no. 24, 2007, p. 156.

³¹² Cf. e.g. Ötsch, 'Die mechanistische Metapher', pp. 6-7.

³¹³ Cf. *ibid.*, p. 10.

³¹⁴ Cf. *ibid.*, p. 19.

equilibrium theory got its metaphors from mechanics.³¹⁵ Walras' idea for his formulation of a general equilibrium might for instance have been influenced by Louis Poinot's 'Eléments de statique'. Poinot shows how the equilibrium of a system, consisting of many factors, influencing each other by their force of gravity, can be determined by the solution of a system of equations.³¹⁶ As has already been shown, the neoclassical general equilibrium theory is equivalent to a Laplacean world view. The final state in the model is completely determined by the initial state and the application of a set of general laws.³¹⁷ According to this world view, the neoclassical *Homo Oeconomicus* acts like a machine and is also termed as such by the first neoclassical theorists.³¹⁸ Quantum physics destroyed the deterministic, materialistic and mechanistic world-view. If it is not true that the world is a machine, why should the economy or men be machines?³¹⁹ Consequently, deterministic natural laws would have to be rephrased as 'statistical-laws'.³²⁰ Maybe the emergence of econometrics can be seen as such a development in economics. Generally, it seems reasonable to substitute the Newtonian with a Heisenbergian model. The Newtonian paradigm, as used in classical and neoclassical economics, was the basis for the competitive free market system. The economy was described and interpreted in terms of classical physics and mechanics, in analogy to the planetary system, a self-regulating system that automatically moves to a point of equilibrium.³²¹ To influence the economy from outside would thus be an unnatural and undesirable interference.³²² In contrast, the Heisenbergian model corresponds to the managerial society of the 20th century.³²³ According to Heisenberg's principle of uncertainty, it is impossible to determine the position and the velocity of a particle at arbitrary precision.

³¹⁵ Cf. e.g. Walras, 'Économique et Mécanique'.

³¹⁶ Cf. U. Schwalbe, 'Léon Walras', in H. D. Kurz (ed.), *Klassiker des ökonomischen Denkens*, vol. 1, C. H. Beck, Munich, 2008, p. 248.

³¹⁷ Cf. Ötsch, 'Die mechanistische Metapher', p. 25.

³¹⁸ Cf. *ibid.*, pp. 27-8. and cf. Edgeworth, p. 15.

³¹⁹ Cf. Callejas, p. 33.

³²⁰ Cf. O. H. Taylor, 'Economics and the idea of natural laws', in *The Quarterly Journal of Economics*, vol. 44, no. 1, 1929, pp. 18-9.

³²¹ Cf. W. A. Weisskopf, 'The method is the ideology: From a Newtonian to a Heisenbergian paradigm in economics', in *Journal of Economics Issues*, vol. 13, no. 4, 1979, pp. 869-70.

³²² Cf. *ibid.*, p. 874.

³²³ Cf. *ibid.*, p. 869.

This destroys the basis for exact predictions.³²⁴ In addition, the Copenhagen Interpretation of quantum physics implies that the observer has an effect on the observed reality; that is, you cannot distinguish reality from its measurement.³²⁵ A concept that is actually familiar to the economist: We cannot know what the preferences of individuals are, before they are disclosed.³²⁶ Preferences therefore only become real to the observer in the moment they have effects on the consumer choice. Overall a Heisenbergian world-view in economics leads to an emphasis on concepts like market power, the possibility to exert influence on the system by way of for example administered prices or creative managerial actions and the impossibility of exact predictions.³²⁷ It would follow that if we cannot know what the future will be like (especially since the Laplacean world view turned out to be wrong), it would rather be the task of the social disciplines to ‘conduct a rational dialogue about what the future should be’ rather than to be concerned with what is.³²⁸ Probably out of fear of the consequences of modern physics for the world-view of economics, there have been little inclusions of metaphors from 20th century physics into economics³²⁹.

Since the middle of the 20th century, economics takes its metaphors often from evolutionary biology. The basis for the theory of evolution is scarcity³³⁰ and in the resulting struggle for existence only the fittest will survive. The analogy drawn from this to economics is that only those who manage their resources efficiently and are successful in the competition for scarce resources, will prosper. However, this analogy is flawed: First of all, human beings in contrast to animals and especially plants are capable of producing their means of subsistence and they are indeed very creative in increasing the productivity of production processes. Whereas plants and most animals compete for an absolutely fixed amount of resources, humans are able to increase supply. Certainly, resources in the end are finite also for humans, but the difference has to be noted and is

³²⁴ Cf. Weiskopf, p. 871.

³²⁵ ‘Copenhagen interpretation’, in *Encyclopædia Britannica*, retrieved 03 December 2009, <<http://www.britannica.com/EBchecked/topic/136538/Copenhagen-interpretation>>.

³²⁶ Cf. P. A. Samuelson, ‘Consumption theory in terms of revealed preferences’, in *Economica*, new series, vol. 15, no. 60, 1948, pp. 243-53.

³²⁷ Cf. Weiskopf, pp. 874-5.

³²⁸ Cf. *ibid.*, p. 883.

³²⁹ Cf. Mirowski, *More heat than light*, pp. 386-94.

of importance as the history of Malthus' theory shows. In particular, the above interpretation is based on a mistaken understanding of how evolution works. Animals do not maximise their fitness in order to be more successful in the struggle for existence, but rather, natural forces and the scarcity of resources wipe out everything that is not sufficiently adapted. As a consequence, the characteristics of creatures change over many generations, and over time only beings that are very closely adapted to their environment remain. Note that this is a completely passive process, no one is maximising anything. It is a 'mechanistic', 'unplanned' process of adaption.³³¹ Compare this to economic processes which have so much to do with creative, conscious, planned and strategic actions of entrepreneurs and consumers. In evolutionary theory, the complex structures of organisms only exist to keep the organism alive until the organism was able to pass the underlying information (the genes) on to the next generation. The structures have thus only the purpose of conserving information.³³² This is of course a reductionistic explanation of living-beings, but certainly helpful to understand the logic of evolution. Applying this to economics, the purpose of a firm is only to break-even and in doing so to survive the current period, and the consumer would only strive to earn an income sufficient to survive. Evolutionary economics in this sense is not about maximisation of profit, income or utility, it is about surviving and thus about making no losses and being able to satisfy basic needs. One more difficulty of the application of the evolutionary logic to economics should be noted: In biology, the process of selection is usually not a matter of life and death. It is all about the *Adaptionswert*³³³, the contribution to the gene pool of the next generation.³³⁴ The critical point is: Firms do not replicate. They can continue to exist, grow or go bankrupt, but one 'adult company' of this period does not produce a set of 'baby companies' in the next period. And also: There are no genes.

The analogy of the logic of evolution to economics is flawed. That is not further surprising; metaphors can only illustrate certain aspects and will necessarily be flawed in rela-

³³⁰ Cf. Müller & Sauer, p. 11.

³³¹ Cf. *ibid.*, pp. 13-4.

³³² Cf. *ibid.*, p. 17.

³³³ Cf. 'fitness'.

³³⁴ Cf. Müller & Sauer, p. 28.

tion to other aspects of the subject, but since metaphors have a deep impact on the self-concept of a discipline, it is important to be aware of the limitations of the metaphors one uses.

3.5 Discussion

This chapter has tried to analyse the concept of efficiency in the context of economics. It has been shown that efficiency should not be understood as a law of nature, but that efficiency as a guiding principle in economic life and theory has a history. The understanding of efficiency has developed over time and our modern view of it is partly a result of our culture and economic system. Besides scarcity, several other influences have been critically analysed: the invention of time measuring techniques, medieval monasteries, the discovery of natural laws in physics, the transition from feudalism to a capitalistic system, the separation of household and firm, utilitarianism and the marginal revolution, the mathematisation of economic theory and finally some interdependent aspects of economics and biology. It has furthermore been shown that efficiency has features of a norm and in the concluding chapter, an overview of the use of metaphors in economics and its effects on the understanding of efficiency was given.

The purpose of chapter 3 was not to criticise the concept of efficiency itself, but to attempt to illuminate the nature of the concept and therefore to make the reader aware of its limitations. The argument is similar to the argument about the analogies from evolutionary theory. It is not about criticising the analogy as such, but to criticise a naive and uncritical use of it and to remember that it is only an analogy. It is clear also that no consumer or entrepreneur literally calculates the optimum of his or her utility function or profit function, respectively. The appropriate picture has been given by Milton Friedman, who compared the problem to a top billiard player who acts as if he knew all the relevant mathematical and physical formulae, but actually simply has an excellent feeling for where and how to hit the ball.³³⁵

³³⁵ Cf. M. Friedman, 'The methodology of positive economics', in F. Hahn (ed.), *Philosophy and economic theory*, Oxford University Press, Oxford et al., 1979, pp. 31-2.

Why is the whole issue important, after all? Because a world-view always has effects on your actions and the way you think (and the way you do research in this context). Weber saw the positive effects on effectivity that the rationalisation of all different areas of life had. But he was also aware of the ‘Versachlichung’, ‘Verunpersönlichung’,³³⁶ ‘Entmenschlichung’, and ‘Entseelung’³³⁷ that this development caused. Further, an approach that is only based on efficiency, might exclude important elements from its consideration. There is for example the danger of economics becoming an ahistorical discipline. As has been shown, conditions of our modern capitalistic society are often understood as natural-law-like facts rather than historical developments. Also, economics is in the danger of becoming an inhuman discipline in the sense of not having conscious, free agents as its subjects, but maximising machines. Robins’ definition of economics for instance does not even mention human beings. In an economic system that is purely based on efficiency, human beings are in danger of degenerating to objects rather than being the subjects of economic processes, as for example Christian social ethics sees them.³³⁸ This is also captured in what Peter Koslowski called ‘entelechial efficiency’.³³⁹ The economy does not only have to produce efficiently, but it also has to produce what humans want. Entelechial efficiency in this context means that the economy allows for humans to actualise a maximum of expressivity of the human, entelechial, self. And finally it should never be forgotten that human beings are not the only maximands in the process of maximisation. A comprehensive concept of efficiency has to include ecological dimensions as well.³⁴⁰

³³⁶ M. Weber, ‘Zwischenbetrachtung: Theorie der Stufen und Richtungen religiöser Weltablehnung’, in *Gesammelte Aufsätze zur Religionssoziologie*, Zweitausendeins, Frankfurt am Main, 2006, first published in 1920, pp. 539-45. ‘Dispassion’, ‘Depersonification’.

³³⁷ D. Kaesler, ‘Vorwort des Herausgebers’, in M. Weber, *Die protestantische Ethik und der Geist des Kapitalismus*, ed. by D. Kaesler, 3rd ed., C. H. Beck, Munich, 2010, first published 1904/05 as essays and 1920 as a monograph, p. 54. ‘Dehumanisation’, ‘Desoulment’.

³³⁸ Cf. Second Vatican Council, *Gaudium et spes*, Vatican, 1965, no. 63.

³³⁹ Koslowski, ‘Maximierung von Existenz’, p. 61.

³⁴⁰ Cf. *ibid.*, pp. 66-7.

4 Aspects of Efficiency: The Role of the Economic System

4.1 Introduction

The term *efficiency* covers several aspects of one phenomenon. All single aspects have three things in common: an input-output-relation, non-wastefulness and the logic of maximising or minimising. Often, single aspects of efficiency are used as a synonym for ‘efficiency’. This chapter (4. Aspects of Efficiency) tries to give an in-depth analysis of the term efficiency in chapter 4.2 with the aim of clearing up some of the confusion about the term.

Different economic systems attempt efficiency in different ways. In chapter 4.3 I show how market economies and centrally planned economies approach the issue of efficiency. Particularly important is, whether the economic systems can live up to their ideal of efficiency. Several hindrances to efficiency will be discussed, before chapter 4.4 draws some conclusions about the different roles that efficiency plays in both economic systems.

4.2 Economic Efficiency

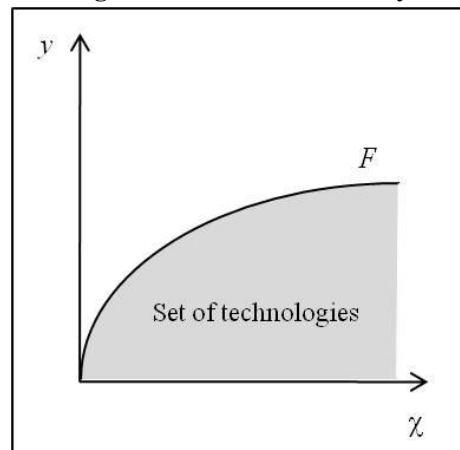
The purpose of chapter 4.2 is to distinguish three aspects of efficiency: technical efficiency, distributive efficiency, and the efficiency of the output mix. This will be done by giving an overview of standard textbook microeconomics. Hence, in order to simplify matters, the existence of a neoclassical production function is assumed. This suffices to clarify the logic of the different aspects of efficiency. For a detailed analysis of the reasonableness of the neoclassical production function, refer for example to the work of Bertram Schefold.³⁴¹

³⁴¹ Cf. e.g. B. Schefold, ‘Production function in the light of the Cambridge critique’, in *Journal of Macroeconomics*, vol. 30, 2008, pp. 783-97.

4.2.1 Technical Efficiency

Technical efficiency or productive efficiency means that there is no production vector that allows to produce a higher output with the given amount of inputs or that a given output cannot be produced with fewer inputs.³⁴² Or to put it in another way: ‘A possible point in the commodity space is called efficient whenever an increase in one of its coordinates (the net output of one good) can be achieved only at the cost of a decrease in some other coordinate (the net output of another good).’³⁴³

Figure 2: Technical Efficiency



Source: Cf. U. Cantner et al., *Produktivitäts- und Effizienzanalyse: der nichtparametrische Ansatz*, Springer, Berlin, 2007, p. 4.

Figure 2 shows a production process. χ denotes inputs and y output. Every point in the graph stands for an input-output combination and the area below the production function F (including F itself) is the set of possible technologies and thus possible input-output combinations. For every point below F it is possible to either increase the output with the given amount of inputs or to produce the same amount of output with less input. For points on F a further improvement of that kind is not possible. Points on F are therefore roughly speaking technically efficient.³⁴⁴

³⁴² Cf. U. Cantner et al., *Produktivitäts- und Effizienzanalyse: der nichtparametrische Ansatz*, Springer, Berlin, 2007, p. 4.

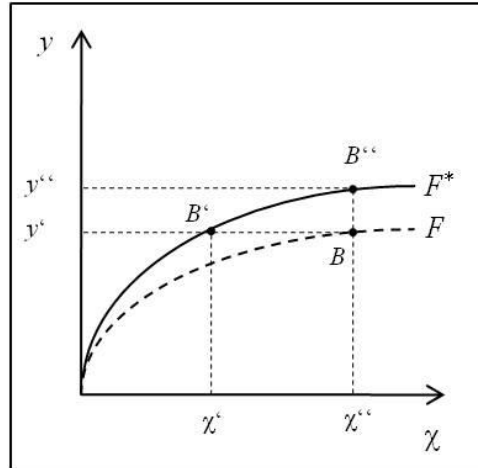
³⁴³ T. C. Koopmans, ‘Analysis of production as an efficient combination of activities’, in T. C. Koopmans (ed.), *Activity analysis of production and allocation*, Wiley, New York, 1951, p. 60. Koopmans was in fact among the first to introduce this concept of Pareto efficiency to production processes (cf. *ibid.*, pp. 2-3).

³⁴⁴ That this is only roughly and not strictly true will be shown in chapter 4.2.1.1.

4.2.1.1 Input vs. Output Efficiency

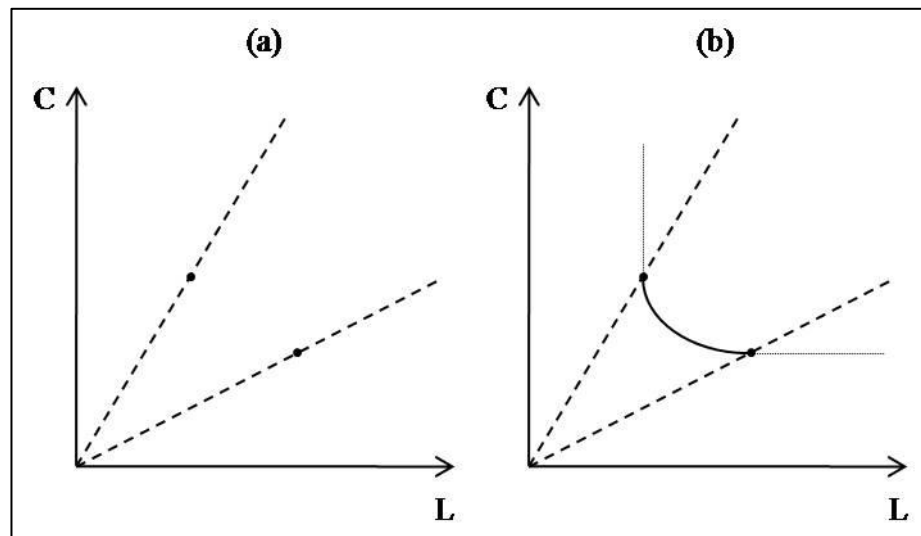
Technical efficiency can be further distinguished into input efficiency and output efficiency. Starting from point B in figure 3, the firm could produce a higher amount of output (y'') with the same amount of inputs (χ'') and reach point B'' . In that sense, B is not *output efficient*. Also, the firm could reach point B' and produce the same amount of output y' with less inputs χ' . In that sense, B is not *input efficient*.

Figure 3: Input vs. Output-Efficiency



Source: Cf. Cantner, p. 7.

In this example it is obvious that B is not efficient. Now consider the case of a production function that at some point becomes parallel to the horizontal axis. Starting from a point on the horizontal part of the production function, if you increase the amount of inputs, output will remain constant. A point on the horizontal part of the production function would be output efficient, but not input efficient, since with the given amount of inputs you could not produce any more output but you could produce the same amount of output with fewer inputs. This shows that the statement above about the technical efficiency of the production function has to be qualified as saying that all points on the production function are output efficient and input efficient only if the production function is monotonically increasing. This is also captured in figures 4 (a) and 4 (b).

Figure 4: Input vs. Output-Efficiency – Two Technologies

Source: Cf. F. Breyer, *Mikroökonomik*, 3rd ed., Springer, Berlin, 2007, pp. 11-3, and cf. Cantner, p. 7.

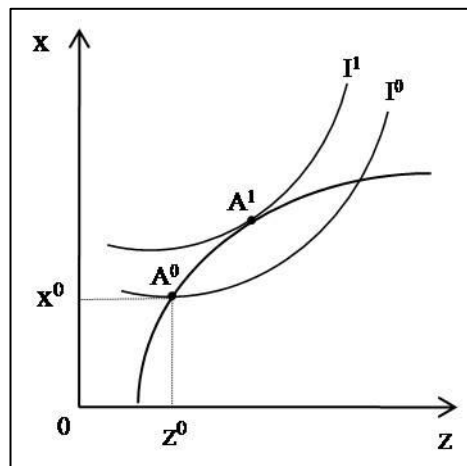
The two dashed lines in both figures stand for two different technologies, one is capital-intensive, the other labour-intensive. All points on both lines are input efficient. The two marked points in figure 4 (a) represent the same level of output. In figure 4 (b) an isoquant connects both points. All points on the isoquant represent the same level of output, produced with the use of different technologies. All points on the isoquant and between the two dashed lines are input and output efficient. The points of the isoquant above or to the right of the two marked points represent output efficient but not input efficient combinations, since the same amount of output (represented by the isoquant) could be produced with fewer inputs.³⁴⁵

4.2.1.2 Efficient Input Supply vs. Efficient Input Use

Efficient input supply by an individual is achieved when the (opportunity) costs of supplying input z are equal to the compensation for its supply.³⁴⁶

³⁴⁵ Cf. F. Breyer, *Mikroökonomik*, 3rd ed., Springer, Berlin, 2007, pp. 11-3, and cf. Cantner, p. 9.

³⁴⁶ Cf. H. Gravelle & R. Rees, *Microeconomics*, 3rd ed., Prentice Hall, Harlow et al., 2004, pp. 284-5.

Figure 5: Efficient Input Supply

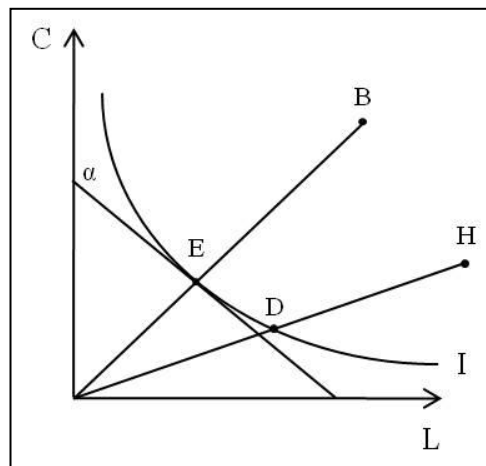
Source: Cf. H. Gravelle & R. Rees, *Microeconomics*, 3rd ed.,
Prentice Hall, Harlow et al., 2004, p. 285.

Figure 5 depicts supply of input z by an individual on the horizontal axis and consumption of the individual on the vertical axis. The more of z the individual supplies, the more she can consume. However, the individual also has to consider the opportunity cost of supplying z . I^0 and I^1 are indifference curves of the individual. In A^0 the supply of z is not efficient. I^0 and the consumption possibility curve cross. The individual can increase her utility by shifting to A^1 with a higher supply of z and a higher level of consumption. At this point the slope of both curves is equal to the individual's marginal rate of substitution between consumption and input supply.³⁴⁷

Turning now to the *efficient use of inputs*, let us first consider the case of two inputs, one output and one producer, and afterwards the case of two producers and two inputs. Allocative efficiency means the efficient use of inputs in their right proportions according to their relative prices.³⁴⁸

³⁴⁷ Cf. Gravelle & Rees, pp. 284-5.

³⁴⁸ Cf. Cantner, p. 10.

Figure 6: Efficient Input Use

Source: Cf. Cantner, p. 9.

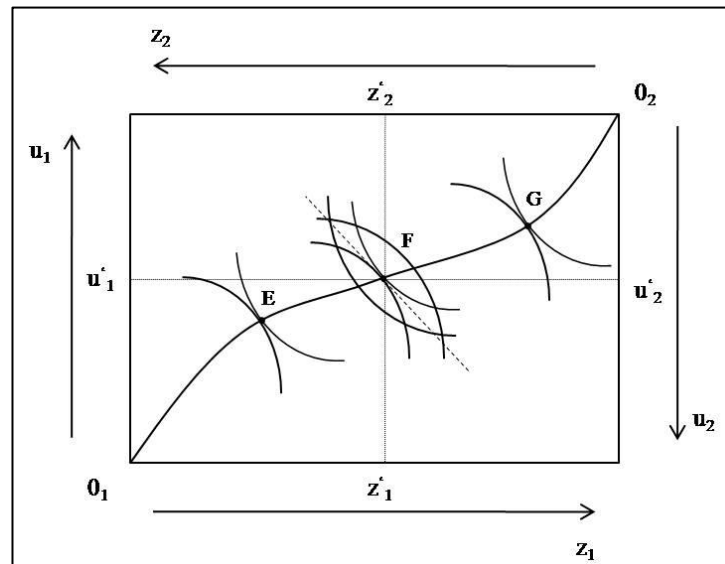
Figure 6 shows the efficient choice between two inputs, capital (C) and labour (L) to produce a given amount of output, represented by the isoquant (I). α is an isocost-line, its slope is given by the relative prices of C and L . All points on \overline{OEB} and \overline{ODH} are input efficient, all points on I are output efficient. Both E and D are thus input and output efficient. The tangent point of α and I gives the cost minimising input proportions to produce the amount of output represented by I . Thus only E is allocatively efficient, since only E is cost minimising given the relative prices of C and L .³⁴⁹

Figure 7 depicts the allocation of two inputs among two producers or two forms of use. z_1 stands for the amount of resource z that is allocated to firm 1 and u_1 stands for the amount of resource u that is allocated to firm 1. z_2 and u_2 respectively are the amounts of z and u that are allocated to firm 2. Starting from O_1 in the direction of O_2 , the output of firm 1 increases, as is depicted by convex isoquants. And starting from O_2 in the direction of O_1 the output of firm 2 increases. Allocations at intersection points of isoquants cannot be efficient, since by reallocations, the output of at least one firm can be increased without reducing the output of the other firm. Efficient allocations are given at tangent points of isoquants, which can be connected to form the contract curve $\overline{O_1O_2}$. At points depicting efficient allocations, the slopes of the isoquants must be equal to the marginal rate of technical substitution (MRTS); that is, the rate at which inputs can be

³⁴⁹ Cf. Cantner, pp. 9-10.

substituted for each other, while keeping the output constant.³⁵⁰ At these points, no further Pareto-improvements are possible.

Figure 7: Efficient Input Use – Two Producers



Source: Cf. Gravelle & Rees, p. 286.

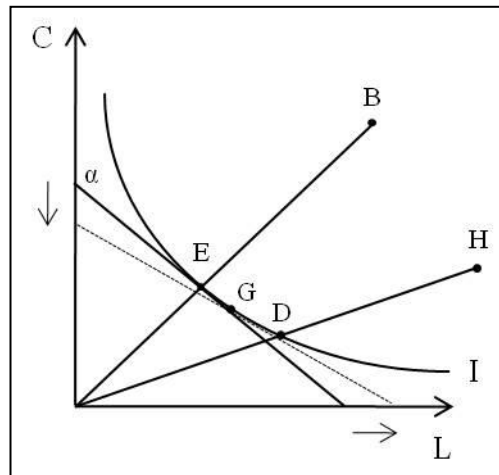
4.2.1.3 Static vs. Dynamic Efficiency

So far the analysis has been purely static. *Static efficiency* means that no options of production and need satisfaction remain unused.³⁵¹ If more than one period is included to the analysis, several other aspects have to be taken into account. First of all, relative prices can change. In the context of production, the production function or technical efficiency remain unchanged, but the allocative efficiency might be altered.³⁵²

³⁵⁰ Cf. Gravelle & Rees, pp. 285-6.

³⁵¹ Cf. J. Schumann et al., *Grundzüge der mikroökonomischen Theorie*, 8th ed., Springer, Berlin et al., 2007, p. 37.

³⁵² Cf. Cantner, p. 12.

Figure 8: Dynamic Efficiency – Relative Price Changes

Source: Own figure, based on Cantner, p. 9.

In figure 8, relative prices between input C and L have changed compared to figure 6. L became relatively cheaper, while C became relatively more expensive and as a result, the isocost-curve α pivoted. After the adjustment, the allocatively efficient production takes place at point G .

Secondly, product and process innovations might take place.³⁵³ Product innovations cannot be analysed with the graphic tools used so far, and would also be more relevant in the context of consumer choice. In the context of production, process innovations play a more decisive role. After a process innovation took place, it might be possible to realise points above the old production function, which is equivalent to an upwards shift of the same.

In figure 9 the old production function $F^*(t)$ shifts to $F^*(t+1)$. Points that have so far been technically efficient, are no longer so. Whereas B was a point of the production function in period t , in $t+1$ it is possible to produce either more output with the same amount of inputs (B'') or to produce the same amount of output with fewer inputs (B').³⁵⁴ *Dynamic efficiency* is therefore either the ability to enhance production capacity over time without an increase in inputs³⁵⁵ or the ability to achieve the same level of out-

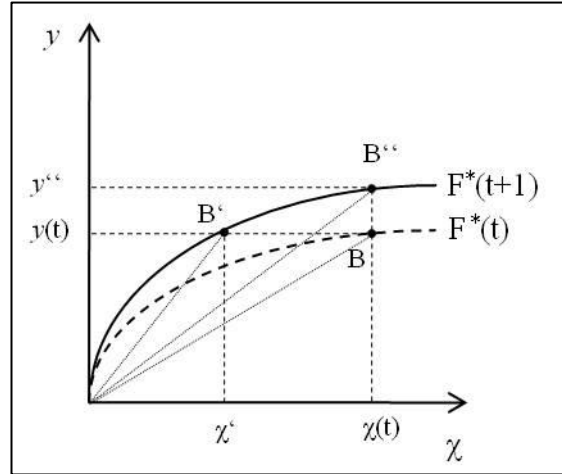
³⁵³ Cf. Schumann, p. 37.

³⁵⁴ Cf. Cantner, pp. 12-4.

³⁵⁵ Cf. P. R. Gregory & R. C. Stuart, *Comparative Economic Systems*, 6th ed., Houghton Mifflin, Boston, 1999, p. 44.

put over time with fewer inputs. This can be measured by the growth of output in relation to the growth of input.³⁵⁶

Figure 9: Dynamic Efficiency – Process Innovation



Source: Cf. Cantner, p. 13.

It should also be noted that if only short term efficiency is pursued, it might be reasonable to ruin machinery and lose customers, as long as it leads to an increase in efficiency. Whereas if long term efficiency is pursued, sustainability, trust, etc. have to be taken into consideration.³⁵⁷

4.2.1.4 Efficient Scale

By *efficient scale* the ‘right’ or ‘optimal’ size of a firm is meant, whereas size is measured in units of output produced. At the efficient scale of the firm, average costs are at a minimum, which is the equivalent of saying that total factor productivity is at a maximum.³⁵⁸

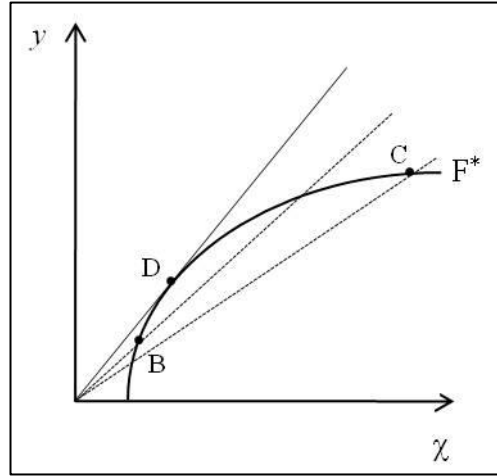
Figure 10 shows three different output levels of a firm. F^* is the production function, χ is the amount of input, y is the output and B , C and D stand for three different sizes of production. The slope of every line is equal to total factor productivity for every given size of production. The slope and thus total factor productivity is at its maximum at the tangent to the production function; that is, point D . The slope of both the lines through B

³⁵⁶ Cf. Gregory & Stuart, p. 44.

³⁵⁷ Cf. M. Shubik, ‘On concepts of efficiency’, in *Policy sciences*, no. 9:2, 1978, p. 124.

and C are less than the one through D . At point B , the scale is less than efficient, at C it is greater than efficient.³⁵⁹

Figure 10: Efficient Scale



Source: Cf. Cantner, p. 11.

4.2.1.5 Efficiency, Profit Maximisation, Cost Minimisation

The profit maximising output is technically efficient³⁶⁰ and also cost minimising. To show that profit maximisation implies cost minimisation, consider the following proof:

Firstly, the logic of cost minimisation will be shown,³⁶¹ and then in the second step the profit maximising solution will be derived and finally it will be shown that both solutions are identical. The problem of cost minimisation with two inputs, labour (L) and capital (C) can be stated as

$$\min_{(L,K)} wL + rC \quad (4.1)$$

$$s. t. f(L, C) = Q. \quad (4.2)$$

The cost function consists of the input of labour units multiplied with the wage rate (w) plus the input of capital multiplied by the cost of capital (r). The given output (Q) is a

³⁵⁸ Cf. Cantner, pp. 10-1.

³⁵⁹ Cf. *ibid.*, pp. 10-2.

³⁶⁰ Cf. F. A. Cowell, *Microeconomics: Principles and analysis*, Oxford University Press, Oxford, 2006, p. 22.

³⁶¹ The derivation of the cost minimising solution follows D. Besanko & R. R. Braeutigam, *Microeconomics*, 3rd ed., Wiley, New York, 2007, pp. 260-1.

function of labour and capital. We look for the production technique that leads to minimal costs while producing output Q . To solve (4.1) subject to (4.2), define the Lagrangian function

$$\Lambda(L, C, \lambda) = wL + rC - \lambda[f(L, C) - Q] \quad (4.3)$$

where λ represents the Lagrange-multiplier. The first order conditions for an optimal solution (with positive values for L and C) are:

$$\frac{\partial \Lambda}{\partial L} = 0 \Rightarrow w = \lambda \frac{\partial f(L, C)}{\partial L} \quad (4.4)$$

$$\frac{\partial \Lambda}{\partial C} = 0 \Rightarrow r = \lambda \frac{\partial f(L, C)}{\partial C} \quad (4.5)$$

$$\frac{\partial \Lambda}{\partial \lambda} = 0 \Rightarrow w = f(L, C) = Q. \quad (4.6)$$

By combining (4.4) and (4.5) you get

$$\frac{\frac{\partial f(L, C)}{\partial L}}{\frac{\partial f(L, C)}{\partial C}} = \frac{w}{r} \Leftrightarrow \frac{MP_L}{MP_C} = \frac{w}{r} \quad (4.7)$$

$$\Leftrightarrow \frac{MP_L}{w} = \frac{MP_C}{r}. \quad (4.8)$$

Here, MP_i stands for the marginal product of factor i . The result means that at the cost minimising input combination the additional output that the enterprise gets from every additional monetary unit spent on labour is equal to the additional output it gets from every additional monetary unit spent on capital.

Let us now turn to profit maximisation. The objective function is

$$\max_{(L, C)} \pi(L, C) = Pf(L, C) - wL - rC. \quad (4.9)$$

Profit (π) is equal to revenues (production function times price vector P) minus costs (labour costs wL and capital costs rC). The first order conditions for an optimum are

$$\frac{\partial \pi}{\partial L} = P \frac{\partial f}{\partial L} - w = 0 \Rightarrow P = \frac{w}{MP_L} \quad (4.10)$$

$$\frac{\partial \pi}{\partial C} = P \frac{\partial f}{\partial C} - r = 0 \Rightarrow P = \frac{r}{MP_C}. \quad (4.11)$$

Marginal costs are therefore equal to the price. Combining (4.10) and (4.11) leads us to

$$\frac{w}{MP_L} = \frac{r}{MP_C} \quad (4.12)$$

$$\Leftrightarrow \frac{MP_L}{w} = \frac{MP_C}{r}. \quad (4.13)$$

You can immediately see that (4.13) is equal to (4.8). Profit maximisation is therefore equivalent to cost minimisation.³⁶²

The result that cost minimisation and profit maximisation are just two sides of the same coin is not further surprising. If costs are not minimised, a profit cannot be maximised, since you could still increase the profit by further reducing the costs. A profit maximising (or cost minimising) output is also technically efficient. That is to say, if $y \in Y$; that is, y is a feasible output vector, and profit maximising for some $p \gg 0$, then y is efficient. The logic of the proof is similar to the one just mentioned: Suppose the opposite was true. There would be a $y' \in Y$ such that $y' \neq y$ and $y' \geq y$. Since $p \gg 0$, this implies that $p \cdot y' > p \cdot y$. But then it would not have been true that y was profit maximising in the first place.³⁶³

If an output vector is profit maximising, it is not possible to produce an output that leads to a higher profit with the given inputs, thus it is output efficient. If an output vector is cost minimising, it is not possible to attain the same level of output or the same profit with less input and it is thus input efficient.

It remains to be noted that cost minimisation is equivalent to profit maximisation only under perfect competition. If market power prevails the above analysis does not hold. Under perfect competition, consumers maximise their welfare by setting marginal utility equal to the price. Marginal costs also equal the price and therefore marginal utility is equal to marginal costs:

$$MU = P \text{ and } MC = P \Rightarrow MU = MC. \quad (4.14)$$

³⁶² The derivation of the profit maximising solution follows Besanko & Braeutigam, pp. 358-9.

³⁶³ Cf. A. Mas-Colell et al., *Microeconomic theory*, Oxford University Press, New York et al., 1995, p. 150.

A monopolist sets MC equal to MR , where MR is less than the price. It follows that marginal cost will be less than marginal utility:

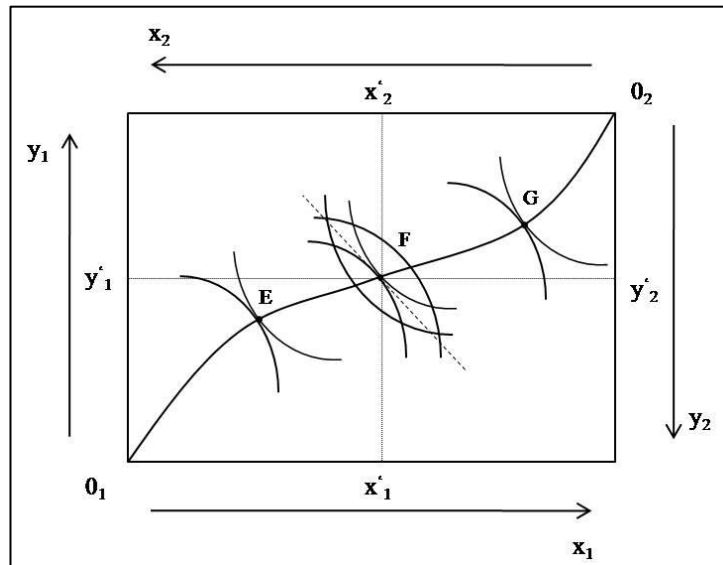
$$MU = P \text{ and } MC = MR < P \Rightarrow MC < MU. \quad (4.15)$$

If market power prevails, producers will use fewer resources in these industries than would be efficient. Society would benefit from an increase of production but the monopolist will not increase production since an additional unit of output would reduce his profits.³⁶⁴

4.2.2 Distributive Efficiency

After analysing efficient production, we now turn to efficient consumption. Starting from a given amount of goods available for consumption, a *distribution is efficient* if it is not possible to make one individual better off without making someone else worse off.³⁶⁵

Figure 11: Efficient Exchange



Source: Cf. Gravelle & Rees, p. 283.

The Edgeworth-box in figure 11 shows all exchange solutions between two individuals. Individual 1, starting from 0_1 , can consume more of x by moving to the right and more

³⁶⁴ Cf. W. J. Baumol & A. S. Blinder, *Microeconomics: Principles and policy*, 9th ed., South Western, Mason, 2004, p. 201.

³⁶⁵ Cf. Besanko & Braeutigam, p. 628.

of y by moving upwards. Individual 2, starting from 0_2 can consume more of x by moving to the left and more of y by moving downwards. 1's indifference curves are convex in 0_1 with an increasing level of utility in the upper-right direction (Individual 2 respectively in the lower-left direction). Intersection points of individual 1 and 2's indifference curves cannot be efficient, because it is still possible to increase the utility of one individual without decreasing that of the other. Such Pareto-improvements are no longer possible at tangent points of indifference curves, thus these points are points of efficient exchange, denoted as efficient distributions. The contract curve $\overline{0_1 0_2}$ is the set of all points of efficient exchange. At these points the marginal rate of substitution (MRS) is equal for all individuals or households. That means for example that individual 1 might be willing to give up three x_1 in order to receive one x_2 . In a situation of efficient exchange, individual 2 would be willing to exchange at the same terms. If the MRS was not the same for all individuals, both would be able to improve their situation by exchange.³⁶⁶

4.2.2.1 Uncertainty

In the case of uncertainty, production and consumption or exchange and consumption do not happen instantaneously, but there is an ex ante state before the actual state of the world ($\omega \in \Omega$, ω out of all possible states of the world) is revealed and an ex post state after it has been revealed. The question arises whether an ex ante efficient allocation is also ex post efficient. This issue is to be discussed in this chapter.³⁶⁷

Given an allocation \hat{a} , household h can consume \hat{x}_ω^h under the state of the world ω . The resulting utility of household h is \hat{v}^h , $h = 1, 2, \dots, n_h$. 'An allocation \hat{a} is *ex-ante Pareto-efficient* if it is feasible and there is no other feasible allocation \hat{x}_ω^h with associated utility levels v^h , $h = 1, 2, \dots, n_h$ such that, for all h ,

$$v^h \geq \hat{v}^h \quad (4.16)$$

³⁶⁶ Cf. Gravelle & Rees, p. 283.

³⁶⁷ Following Cowell, pp. 250-2.

with strict inequality for at least one h .³⁶⁸ Using subjective probability weights π_ω^h and expectations about utility $\varepsilon^h u^h$, condition 4.16 can be transformed to:

$$\sum_{\omega \in \Omega} \pi_\omega^h [u^h(x_\omega^h) - u^h(\hat{x}_\omega^h)] \geq 0. \quad (4.17)$$

Condition 4.17 states that an allocation is *ex-ante* efficient if there is no other allocation with a higher expected utility. ‘The allocation \hat{a} is *ex-post Pareto-efficient* if there is no other feasible allocation a with associated utility levels $v^h = u^h(x_\omega^h)$, $h = 1, 2, \dots, n_h$ such that, for all h , and all $\omega \in \Omega$:

$$u^h(x_\omega^h) - u^h(\hat{x}_\omega^h) \geq 0 \quad (4.18)$$

with strict inequality for at least one h .³⁶⁹

Comparing 4.17 and 4.18 it follows that ‘[i]f there is no state of the world which is regarded by any household as impossible, then any *ex-ante* Pareto-efficient allocation must also be *ex-post* Pareto-efficient.’³⁷⁰ It does not follow, however, that every *ex-post* Pareto-efficient allocation must have been *ex-ante* Pareto-efficient.

This approach assumes firstly that probabilities and secondly that all possible states of the world are known. If it is reasonable to doubt these assumptions, the analysis does not hold.

4.2.2.2 Efficiency and Utility Maximisation

If x_{ij} is the amount of commodity i consumed by individual j , and $u_1 = f^1(x_{11}, \dots, x_{n1})$ is the utility that an arbitrary individual 1 derives from the consumption of his commodity bundle, then Pareto-efficiency requires:

³⁶⁸ Cowell, p. 251 (emphasis added).

³⁶⁹ Ibid., (emphasis added).

³⁷⁰ Ibid.

$$\text{maximise} \quad u_1 = f^1(x_{11}, \dots, x_{n1}) \quad (4.19)$$

$$\text{s. t.} \quad u_2 = f^2(x_{12}, \dots, x_{n2}) = k_2 \quad (4.20)$$

$$\dots\dots\dots$$

$$u_m = f^m(x_{1m}, \dots, x_{nm}) = k_m. \quad (4.21)$$

The utility function of individual 1 is to be maximised without a loss in utility of any other individual 2, . . . , m.³⁷¹

Thus efficiency implies utility maximisation.

4.2.3 Efficient Output Mix

In a society that is economically efficient, there is no way to reorganise with the effect of making at least one individual better off without making any other worse off.³⁷² For this to be the case it is not sufficient that production is technically efficient. For example, in a society of tea drinkers, it would not be efficient to produce lots of coffee and no tea, even though coffee production might be technically efficient.³⁷³ In addition to technical and distributive efficiency it is necessary that those services and commodities are being produced that are being demanded by consumers. Otherwise it would still be possible to make individuals better off without making any other worse off.³⁷⁴ The technical term for this condition is that the marginal rate of transformation (MRT) has to be equal to the marginal rate of substitution (MRS). If this requirement is not fulfilled, then households would for example be willing to give up more x_1 for x_2 than it costs to produce x_2 in terms of x_1 .³⁷⁵

4.2.3.1 Competitive Equilibrium and Total Surplus

In a competitive equilibrium, consumer and producer and thus total-surplus are at a maximum. Consumer surplus is defined as the sum of the summed up differences be-

³⁷¹ Cf. W. J. Baumol, *Economic theory and operations analysis*, 4th ed., Prentice Hall, New Jersey, 1977, pp. 502-3.

³⁷² Cf. Shubik, pp. 123-4.

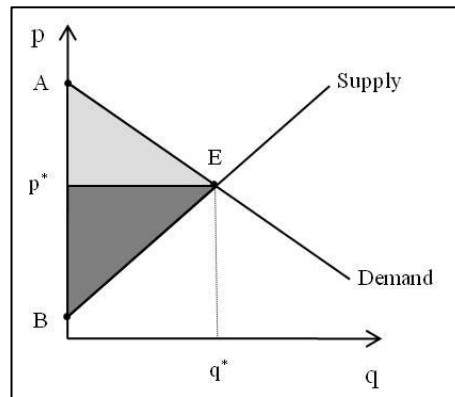
³⁷³ Cf. Baumol, *Economic theory*, p. 503.

³⁷⁴ Cf. Schumann, p. 276.

³⁷⁵ Cf. Gravelle & Rees, pp. 286-8.

tween consumers' willingness to pay and the market prices and thus the area between $\overline{p^*E}$ and the demand curve (shaded in light grey) in figure 12.

Figure 12: Total Surplus



Source: Cf. N. G. Mankiw, *Principles of microeconomics*, 3rd ed., South Western, Mason, 2004, p. 149.

Producer surplus is defined as the summed up differences between the marginal costs of producers and the market price and thus the area between $\overline{p^*E}$ and the supply curve (shaded in dark grey). Total surplus AEB is at its maximum at the market price p^* with the equilibrium quantity q^* . It is not possible to increase total surplus further by either increasing or decreasing q . Also it is not possible to increase either consumer surplus or producer surplus without decreasing the other by changing p . It follows that the competitive equilibrium is efficient in terms of total surplus.³⁷⁶

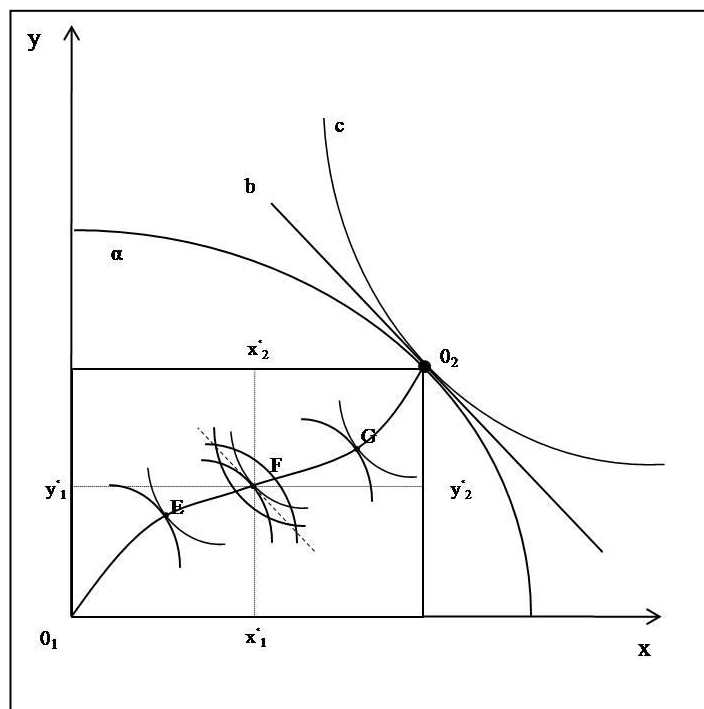
4.2.3.2 Competitive Equilibrium and Efficiency

In a competitive general equilibrium all three requirements for economic efficiency are fulfilled: Firstly, production is technically efficient; that is, the MRTS is equal for all production processes. Secondly, the distribution is efficient, so there is no alternative distribution of production that is a Pareto-improvement; that is, the MRS is equal for all households and thirdly, it is being produced what is being demanded, which means the output mix is efficient or the MRS is equal to the MRT.³⁷⁷ *Economic efficiency* is given only if all three conditions are fulfilled.

³⁷⁶ Cf. N. G. Mankiw, *Principles of microeconomics*, 3rd ed., South Western, Mason, 2004, pp. 149-50.

³⁷⁷ Cf. Gravelle & Rees, pp. 293-6.

Figure 13: Competitive Equilibrium



Source: Based on Breyer, p. 204.

Figure 13 shows such a situation. Production takes place on the transformation curve a , which stands for technical efficiency. Also at the equilibrium point 0_2 , the MRT (slope of a) is equal to the MRS, which means that what is being produced is what is being demanded and finally, exchange is efficient, since the MRS is equal in point F for both depicted households 0_1 and 0_2 .³⁷⁸

4.3 Comparative Economic Systems

So far it has been argued that the marginal conditions describe a state of technical, distributive and output mix efficiency. Elsewhere it has been asserted that these marginal conditions are formulated without any relation to a certain economic system.³⁷⁹ This chapter (4.3) analyses in how far the role of the concept of efficiency varies in different economic systems and considers for this purpose the cases of a market economy and a centrally planned economy. It will be shown what the function of an economic system is, in what sense this relates to the concept of efficiency and whether both the market

³⁷⁸ Cf. Mas-Colell, p. 564, and cf. Besanko & Braeutigam, pp. 628-9.

economy and the centrally planned economy, can fulfil the requirements for economic systems equally well.

It has to be noted that the aim of this chapter is not to give a comprehensive comparison of two economic systems, but simply to analyse the role of the concept of efficiency in them. To ask this is not equivalent to the question which one of the systems is more efficient. An answer to this kind of question would best be found by an empirical study. This chapter, however, does not attempt an empirical comparison, but is an analysis of the role of efficiency in market and centrally planned economies.

4.3.1 Introducing Market and Centrally Planned Systems

An economic system is ‘the set of institutional arrangements used to allocate scarce resources’³⁸⁰ and thus the entirety of laws, information and coordination mechanisms, aims, behavioural patterns and incentive arrangements that govern the functioning of an economy³⁸¹. The economic system can be distinguished in terms of the coordination mechanism (central vs. decentral), property rights (private ownership vs. collective or state ownership) and incentive arrangements (tradition vs. self-interest vs. coercion).³⁸² Here the distinction is mainly being made between one economic system with central planning and one with decentral planning. The distinction in terms of property rights is not decisive in this context and will be neglected unless otherwise noted. Incentive arrangements will play a major role in chapters 4.3.2 and 4.3.3. There it will be assumed that in both systems self-interested motives prevail.

As the name implies, in the *market economy*, markets coordinate the activities of decision making units, using the forces of supply and demand.³⁸³ Such systems are characterised by freedom of consumption and freedom of production. Freedom of consumption means that individuals can decide freely, which products to consume in which quantities and in which qualities, confined only by their income. Freedom of production

³⁷⁹ Cf. Schumann, p. 276.

³⁸⁰ Gregory & Stuart, p. 3.

³⁸¹ Cf. U. Baßeler et al., *Grundlagen und Probleme der Volkswirtschaft*, 19th ed., Schäffer-Poeschel, Stuttgart, 2010, p. 26, and cf. Gregory & Stuart, p. 22.

³⁸² Cf. Baßeler, p. 27.

³⁸³ Cf. Gregory & Stuart, pp. 20-1.

means that the producing units decide themselves which products to produce and which technologies to use. Coordination is thus organised by means of a free price system.³⁸⁴

The foundations of market systems in terms of social theory and philosophy are to be found in the classical, English Liberalism formulated by Smith, Ricardo or Mill.³⁸⁵ As a critique of absolutism, it envisions a society which is not based on values, laws and institutions, laid down by ‘those above’; that is, clergy, nobility, state, etc. Rather, society is supposed to evolve spontaneously, by acts of autonomous and free persons. Liberalism does not only reckon such a society to be possible but to be even more productive than a centrally dictated and controlled order.³⁸⁶

According to this concept, human acts are not socially productive or morally desirable, because they are in accordance with ideal norms and ends, but because they are being approved of by other members of society, who are equally imperfect and self-interested.³⁸⁷

A *centrally planned economy* is one in which all economic activity is organised on the basis of plans that have been formulated by a central planning board. The simplest form of this type is a Robinson-economy (or *Eigenwirtschaft*), with only one individual or family.³⁸⁸ In this case, the head of the family plans all economic activity and delegates work according to everybody’s capabilities and disposability.³⁸⁹ Obviously in this sense, planning also takes place in market economies. Households and enterprises are usually organised according to this hierarchical principle and are in need of planning just as well.³⁹⁰ The difference between market economies and centrally planned economies is

³⁸⁴ Cf. H. Lampert & A. Bossert, *Die Wirtschafts- und Sozialordnung der Bundesrepublik Deutschland im Rahmen der europäischen Union*, 16th ed., Olzog, Munich, 2007, pp. 44-6.

³⁸⁵ Cf. Baßeler, p. 56.

³⁸⁶ Cf. H. Leipold, ‘Gesellschaftstheoretische Fundierung der Wirtschaftssysteme’, in H. Hamel (ed.), *Bundesrepublik, DDR – Die Wirtschaftssysteme: Soziale Marktwirtschaft, Sozialistische Planwirtschaft im Systemvergleich*, 3rd ed., C. H. Beck, Munich, 1979, pp. 17-9.

³⁸⁷ Cf. H. Leipold, *Wirtschafts- und Gesellschaftssysteme im Vergleich: Grundzüge einer Theorie der Wirtschaftssysteme*, 5th ed., Fischer, Stuttgart, 1988, p. 76.

³⁸⁸ Cf. W. Eucken, *Die Grundlagen der Nationalökonomie*, 8th ed., Springer, Berlin, 1965, first published 1939, pp. 79-80.

³⁸⁹ Cf. Lampert & Bossert, p. 34.

³⁹⁰ Cf. H. J. Thieme, ‘Wirtschaftssysteme’, in *Vahlens Kompendium der Wirtschaftstheorie und Wirtschaftspolitik*, 8th ed., Vahlen, Munich, 2003, p. 26.

thus not that in one case planning takes place and in the other it does not, but that in market economies, planning takes place only decentrally in the household or enterprise itself and in the centrally planned economy, planning takes place in the central planning board, binding for all individual entities.

There are three forms of centrally planned economies possible: (i) the totally centrally planned economy, (ii) the centrally planned economy with free exchange of consumption goods and (iii) the centrally planned economy with free consumer choice. In the first case of the totally centrally planned economy, both the use of productive resources and the use of consumption goods are centrally determined. In the second case, with free exchange of consumption goods, in addition to (i), centrally distributed goods can be freely exchanged among consumers. Finally with free consumer choice (iii), only the use of productive resources is centrally planned. Individuals can freely choose, what to consume, restricted only by their income.³⁹¹ In this chapter a centrally planned economy of type (iii); that is, one with free consumer choice, is assumed. However, this distinction is of no major importance for the purposes of this chapter, since free consumer choice in a centrally planned economy is not equal to full consumer sovereignty, as will have to be shown in chapter 4.3.3. This case assumes the existence of money and prices, but since they will have to be centrally fixed, this does not have the same implications as in market economies. It should be noted, that a centrally planned economy is not equal to one in which there is no private property. Such a combination of central administration and collective ownership is possible (Soviet Union) but not necessary, as the case of Germany in the years from 1936-1945 illustrates. Private ownership of the means of production was not abolished, but disposal over private property was restrained.³⁹² Here, limited private ownership is assumed to justify the assumption of self-interested behaviour patterns in both economic systems. Furthermore, planning is understood as the 'method' of a well-intentioned dictator or government. This chapter is

³⁹¹ Cf. Eucken, *Die Grundlagen der Nationalökonomie*, pp. 80-5.

³⁹² Cf. W. Eucken, 'On the theory of the centrally administered economy: An analysis of the German experiment Part 1', in *Economica*, vol. 15, no. 58, 1948, p. 80.

not concerned with the presumably socialist ‘ends’ of left or right-wing political regimes.³⁹³

The idea of central economic planning arises from the critique of the capitalist market mechanism. The market is seen as wasteful. In contrast to central planning, the market is regarded as unable to determine precisely the input of resources that is necessary for an optimal satisfaction of wants. Rather the outcomes of markets are haphazard and can only be right by chance. Furthermore, the market mechanism leads to the isolation of individuals, frequent economic crises, mass unemployment and a wasteful use of scarce resources.³⁹⁴ The overcoming of the ‘anarchy of the market’ is seen as an act of liberation of the human race. Friedrich Engels wrote:

‘Die Anarchie innerhalb der gesellschaftlichen Produktion wird ersetzt durch planmäßige bewußte Organisation. Der Kampf ums Einzeldasein hört auf. Damit erst scheidet der Mensch, in gewissem Sinn, endgültig aus dem Tierreich, tritt aus tierischen Daseinsbedingungen in wirkliche menschliche . . . Erst von da an werden die Menschen ihre Geschichte in vollem Bewußtsein selbst machen, erst von da an werden die von ihnen in Bewegung gesetzten gesellschaftlichen Ursachen vorwiegend und in stets steigendem Maß auch die von ihnen gewollten Wirkungen haben. Es ist der Sprung der Menschheit aus dem Reich der Notwendigkeit in das Reich der Freiheit.’³⁹⁵

To compare economic systems, one has to be clear about the criteria by which the systems ought to be judged. According to Walter Eucken, ‘in either case [,whether centrally planned or market economy,] the aim is to provide for certain needs by combining means of production and labour supplies for productive purposes.’³⁹⁶ If this is true, then that economic system is preferable which leads one of two equally endowed economies to produce more goods. This hints to the notion that the most preferable economic sys-

³⁹³ Cf. F. A. von Hayek, ‘The nature and history of the problem’, in F. A. von Hayek (ed.), *Collectivist economic planning*, 6th ed., London, 1963, p. 15 for this distinction.

³⁹⁴ Cf. Leipold, ‘Gesellschaftstheoretische Fundierung’, p. 39.

³⁹⁵ F. Engels, ‘Die Entwicklung des Sozialismus von der Utopie zur Wissenschaft’, in *Marx Engels Werke*, vol. 19, Dietz, Berlin, 1962, p. 226. ‘Anarchy within social production would be supplanted by planful and deliberate organization. The struggle for individual existence would be at end. Thereby for the first time man would, in a certain sense, step finally out of the animal kingdom, out of the brute conditions of existence, into those that are truly human. . . . Only thence forward would man make his own history, fully conscious of his own actions; only thence forward would the social causes, set in motion by himself, produce mainly and in an ever-increasing measure, the intended results. It is the leap of mankind out of the reign of necessity into that of freedom.’ (F. Engels, *The development of socialism from utopia to science*, translation D. de Leon, retrieved 23 February 2012, <http://www.slp.org/pdf/marx/dev_soc.pdf>, p. 32).

³⁹⁶ W. Eucken, ‘On the theory of the centrally administered economy: An analysis of the German experiment Part 2’, in *Economica*, vol. 15, no. 59, 1948, p. 189.

tem is one which is more efficient. 'A society is economically efficient if there is no way to reorganize which can make any individual better off without making at least one other individual worse off.'³⁹⁷ This statement shows that the matter of efficiency is more complex than simply to ask, which economy is more productive. But an even more general question arises as to where do you get your criteria from, with which you assess economic systems? Every comparison of economic systems requires a criterion or norm according to which the systems ought to be compared. The choice of this criterion is necessarily a value judgement, since it is not possible to arrive at it by solely scientific means. It follows that every assessment of economic systems and institutions regarding their desirability involves a value judgement. It is possible to say, 'economic system A is more efficient than system B', without introducing any value judgement. However, it is not possible to conclude that 'since economic system A is more efficient than system B, A is preferable to B', as a value free statement.³⁹⁸ Of course, this gets even more difficult, if you use multiple criteria. Then there is only one case in which it is possible to come to a conclusion without any further complications and that is when one system ranks highest according to all criteria. It has to be expected, however, that different economic systems perform better or worse depending on the criteria. Then the choice of criteria is still value laden, but in addition you would also need to form a scale of preferences in order to determine which indicators have a higher priority.³⁹⁹ That involves further value judgements.

As has already been noted, this chapter does not attempt to give a conclusive assessment of centrally planned and market economies, neither does it try to establish the concept of efficiency as the sole criterion for such an assessment. The aim is rather to analyse the role of the concept of efficiency in both systems and to highlight differences.

³⁹⁷ Cf. Shubik, pp. 123-4.

³⁹⁸ Cf. P. Bernholz & F. Breyer, *Grundlagen der politischen Ökonomie, Band 1: Theorie der Wirtschaftssysteme*, 3rd ed., Mohr Siebeck, Tübingen, 1993, pp. 18-20.

³⁹⁹ Cf. B. A. Balassa, *The Hungarian experience in economic planning: A theoretical and empirical study*, Yale University Press, New Haven et al., 1959, pp. 6-7.

4.3.2 The Function of an Economic System

What is the function of an economic system? The three main questions every economic system has to answer are: (i) *What* is to be produced, (ii) *how* is it going to be produced and (iii) *for who* is it going to be produced?⁴⁰⁰

The question of *how* corresponds to technical efficiency. If an economic system solves this problem successfully then the economy produces on the transformation-curve. This condition is captured in the requirement that the MRTS has to be equal for all production processes. *For who* should be produced is equivalent to the issue of distributive efficiency; that is, the question of efficient exchange. If this is successfully dealt with, then no more Pareto-improvements are possible by exchange of consumption goods and the economy is on the contract curve of the Edgeworth-box of exchanges. That means that the MRS has to be equal for all households. Finally, *what* should be produced, addresses the problem of an efficient output mix. In order to work economically efficient, it is not only necessary that production takes place in a technically efficient way and that the output is distributed in a Pareto-efficient way, but that the output meets the preferences of the consumers. This is expressed in the third marginal condition that the MRS ought to be equal to the MRT.⁴⁰¹

The next step is to present how centrally planned and market economies attempt to answer these three central questions of every economic system.

In a market economy the coordination takes place by the price mechanism. It ensures that demand and supply are equalised.⁴⁰² The function of the price mechanism is three-fold: Firstly, it serves as a mechanism for communicating information. Via the price system it is possible for every economic agent to ‘act according to an infinite amount of information that is not directly known’⁴⁰³ to himself. The consumer for example does not have to be aware of production techniques, innovations, crop failures, political dis-

⁴⁰⁰ Cf. Gregory & Stuart, p. 3.

⁴⁰¹ Cf. Schumann, p. 276.

⁴⁰² Cf. R. Knauff, ‘Die Funktionsmechanismen der Wirtschaftssysteme’, in H. Hamel (ed.), *Bundesrepublik, DDR – Die Wirtschaftssysteme: Soziale Marktwirtschaft, Sozialistische Planwirtschaft im Systemvergleich*, 3rd ed., C. H. Beck, Munich, 1979, pp. 94-6.

turbances in remote economies, the price system provides all necessary information for the consumption decision.⁴⁰⁴ Secondly, the price system serves as an incentive mechanism: It encourages the supply of productive resources and induces changes of behaviour. Finally, the price mechanism fulfils the task of coordinating the (primary) distribution of income.⁴⁰⁵ In a market economy freedom of consumption and freedom of production prevail. This means that consumers decide themselves what to consume within their own budget and producers decide independently, what and how to produce.⁴⁰⁶

Thus the decisions *what*, *how* and *for who* is to be produced in a market economy are being made as follows: Consumers decide *what* should be produced.⁴⁰⁷ Bringing their purchasing power to the market, they influence the production decisions of producers decisively.⁴⁰⁸ *How* production takes place is being decided upon by the competition on factor markets.⁴⁰⁹ In order to maximise their profits, producers attempt to combine productive resources in an efficient way, according to their prices that have been determined on the factor markets.

Finally, the question of *for who* is to be produced is decided by the preferences of the households and their incomes according to supply and demand on the factor markets.⁴¹⁰ Incomes are determined as prices for factors of production, and according to neoclassical theory they are equivalent to the productive contribution of each factor.⁴¹¹ However,

⁴⁰³ F. A. von Hayek, 'The price system as a mechanism for using knowledge', in M. Bornstein (ed.), *Comparative economic systems*, 5th ed., R. D. Irwin, Homewood, 1985, p. 36.

⁴⁰⁴ Cf. *ibid.*, p. 36.

⁴⁰⁵ Cf. A. Bohnet, 'Preissystem und Preispolitik im Wirtschaftssystem der DDR', in G. Gutmann (ed.), *Basisbereiche der Wirtschaftspolitik in der DDR: Geld-, Finanz- und Preispolitik*, Asperg, Stuttgart, 1983, p. 58.

⁴⁰⁶ Cf. Lampert & Bossert, pp. 45-6.

⁴⁰⁷ Cf. Baßeler, p. 38.

⁴⁰⁸ Cf. Eucken, *Die Grundlagen der Nationalökonomie*, p. 36.

⁴⁰⁹ Cf. Baßeler, p. 39.

⁴¹⁰ Cf. H. Rogall, *Volkswirtschaftslehre für Sozialwissenschaftler: Eine Einführung*, Verlag für Sozialwissenschaften, Wiesbaden, 2006, p. 114.

⁴¹¹ Cf. Eucken, 'On the theory', part 2, pp. 180-1.

in most market economies, the distribution of income usually deviates from the pure merit principle by redistribution.⁴¹²

In a centrally planned economy coordination does not take place by decentral planning of the individual actors on markets, but is exercised by a central planning board. Thus the decisions, *what*, *how* and *for who* to produce are exercised not by the market but by bureaucrats and politicians.⁴¹³ The equalisation of supply and demand takes place with the use of budgeted balance sheets rather than by prices.⁴¹⁴ In a first step, enterprises send data to the central planning board (e.g. stock and demand for employees, raw materials, preliminary products and other productive resources). Then the planning board compiles budgeted balance sheets that try to form a consistent plan of how to produce the required quantities of goods and services. After that inputs are allocated to production processes in the balance sheets. Subsequently the plans are checked for consistency and the budgeted balance sheets are revised until the ultimate plan for all enterprises of the economy is finalised.⁴¹⁵

Whereas in market economies consumers themselves determine *what* ought to be produced, in centrally planned economies, the planning authorities do. In theory the thereby produced bundle of goods does not have to be different from that of a market economy. However, one could presume that the decision of what to produce is influenced by the interest of the planning board itself and a social preference function that would also contain the preferences of consumers,⁴¹⁶ but would be biased towards certain goods as for example armament.⁴¹⁷ Also, whereas in market economies production must meet a demand backed by purchasing power and consequently the supply side has to react to the demand side, that is not the case in centrally planned economies. The central planning

⁴¹² Cf. Knauff, p. 166.

⁴¹³ Cf. Rogall, p. 117.

⁴¹⁴ Cf. Knauff, pp. 94-6.

⁴¹⁵ Cf. Baßeler, pp. 72-6.

⁴¹⁶ Cf. Gregory & Stuart, p. 21.

⁴¹⁷ Cf. Eucken, *Die Grundlagen der Nationalökonomie*, p. 129.

board cannot only amend production to the needs of the consumers, but can also amend the consumption side, by for instance rationing, halting of construction works, etc.⁴¹⁸

The matter of *how* to produce is an interplay of technology requirements, producers and the planning authorities. Producers report their endowments and requirements to the planning board which bases its decisions on these data. The central planning board allocates resources to the enterprises and can pursue political aims by this (e.g. expansion or contraction of sectors). Furthermore, producers in their production process are limited by technology requirements, have to fulfil the predetermined plan and try to minimise their own efforts. Overall, the logic of markets and input prices play only a limited role in the choice of an input mix.⁴¹⁹

Also in centrally planned systems, income is distributed according to merit (*for who*).⁴²⁰ The biggest difference to market economies in this context is the view that only labour is productive and should receive income, based on Marx' labour theory of value. In practice this is not consistently carried out, however, since usually interest is paid on bank deposit and credits and there is a charge to a production fund that can be seen as a rate of return on capital.⁴²¹ In socialism, of course, in the final stage of 'communism *sensu stricto*', distribution is not based on the contribution of every labourer, but on the principle 'from each according to his ability, to each according to his needs!'⁴²² Although centrally planned economies try to distribute income according to individual performances, other goods such as university places, leading positions in enterprises and politics, etc. are often rather distributed according to loyalty to the system and political achievements.⁴²³ In terms of the distribution of personal income distribution a more equitable result is to be expected than in market economies.⁴²⁴ With regard to the distri-

⁴¹⁸ Cf. Eucken, 'On the theory', part 2, p. 89.

⁴¹⁹ Cf. Gregory & Stuart, pp. 115-6.

⁴²⁰ Cf. K. P. Hensel, *Grundformen der Wirtschaftsordnung: Marktwirtschaft – Zentralverwaltungswirtschaft*, 4th ed., LIT, Münster et al., 1992, p. 158.

⁴²¹ Cf. Knauff, p. 166.

⁴²² K. Marx, *Critique of the Gotha programme*, Elecbook, London, 2001, originally published 1872, p. 20.

⁴²³ Cf. W. Gutzeit, *Wirtschaftssysteme in der Entwicklung: Theorieansatz für die gesamtwirtschaftliche Organisation einer Volkswirtschaft*, Duncker & Humblot, Berlin, 2006, p. 149.

⁴²⁴ Cf. Gregory & Stuart, p. 116.

bution of resources among consumption and investment, a clear bias to the latter is likely. In fact, centrally planned economies very often aim at maximum investment. Therefore, the planning board would not distribute fewer resources to consumption than is necessary to keep the productivity of labour stable, but it would also not distribute more resources to the consumer goods industry as is necessary, in order to maximise investment. It follows that labour receives a subsistence minimum of food, clothing and labour which is sufficient for the desired level of labour productivity.⁴²⁵

In this discussion the question has been left open as to whether simply real goods are distributed or if consumers receive a monetary income with which they can freely choose between goods. For the purpose of this chapter, this does not make a big difference. Even if the planning authorities fix prices on which consumers can base their consumption decisions, these prices would neither be able to fulfil their functions as incentives nor as an information system, since they would not effectively reflect scarcity relations and would often be (welfare-)politically biased.⁴²⁶ Also the price system in a centrally planned economy would not ensure consumer sovereignty. Because firstly, the planning board would have already determined which goods have to be produced, prior to the consumption decision. Secondly, the consumer is not the 'king' in centrally planned systems, since enterprises do not have to compete for buyers and are neither forced to sell their goods nor to meet certain quality standards⁴²⁷ or supply particularly appealing products.

The ideal of central planning is 'the swiftest possible central mobilisation of all available resources'⁴²⁸, which has three different aspects: (i) output (target) maximisation, (ii) input minimisation and (iii) inventory minimisation.⁴²⁹ Planning, accordingly, aims at a *general plan equilibrium*, a concept that stands for a situation in which no marginal unit of any good can be reallocated in order to yield a higher marginal utility. Or in

⁴²⁵ Cf. Eucken, 'On the theory', part 2, p. 181.

⁴²⁶ Cf. Leipold, *Wirtschafts- und Gesellschaftssysteme*, p. 225.

⁴²⁷ Cf. Hensel, pp. 161-2.

⁴²⁸ A. Brown & E. Neuberger, 'Basic features of a centrally planned economy', in M. Bornstein (ed.), *Comparative economic systems*, 5th ed., R. D. Irwin, Homewood, 1985, p. 180.

⁴²⁹ Cf. *ibid.*

other words, the marginal utility of every good has to be equal in all uses.⁴³⁰ Consequently efficiency is also an ideal of central planning.⁴³¹ An *efficient plan* would then mean that no reallocations of factors are possible that lead to a higher output in one sector without reducing output in other sectors. Since all information the planning board has, necessarily needs to be simplified and aggregated, no central plan can ever be fully efficient in this sense. A more realistic concept might be the *efficient use of information*. Here, information is treated as given and the planning authorities attempt to formulate the best possible plan.⁴³² Clearly this concept corresponds more to consistency than optimality.⁴³³

This discussion makes it clear that both centrally planned and market economies aim at efficiency. Nevertheless reality in both systems might prove to be different. A comparison of the role of the concept of efficiency in these two economic systems thus has to be particularly concerned with their reality, rather than with the ideal form of the system.⁴³⁴ In the next chapter this will be done in an analytical, rather than an empirical way.

4.3.3 Market Failure vs. Plan Failure

Although the market is a very efficient mechanism, market economies are affected by often fundamental *market failures*. Centrally planned economies also aim at efficiency, its coordination mechanism, however, has several defects. This fact is captured by the term *plan failures*. This chapter will at first analyse the former and then the latter.

The most important market failures (in a broad sense) are: (i) imperfect consumer sovereignty, (ii) public and merit goods, (iii) externalities, (iv) market power, (v) disequilibria, economic crises and underemployment, (vi) inequalities and poverty.

⁴³⁰ Cf. Hensel, p. 126.

⁴³¹ Leaving open at this point the question, whose marginal utility is meant in the context of the general plan equilibrium. Obviously it makes a difference whether the utility of sovereign consumers or the outcome of a politically determined social preference function is meant.

⁴³² Cf. J. M. Montias, *Central Planning in Poland*, Yale University Press, New Haven, 1962, pp. 10-1.

⁴³³ Cf. Gregory & Stuart, p. 132.

⁴³⁴ Cf. H.-R. Peters, *Einführung in die Theorie der Wirtschaftssysteme*, 2nd ed., Oldenbourg, Munich et al., 1993, pp. 197-8.

For economic efficiency *consumer sovereignty* is required. Even in market economies this is not fully realised. Consumers are constantly influenced⁴³⁵ for example by the marketing measures of private enterprises. Furthermore, democratic governments also often influence the decision of *what* should be produced,⁴³⁶ for example out of welfare political motivations.

Public and merit goods are goods that are not sufficiently supplied by the market, since they are nonrival in consumption, for example national defence. Once a public good is in place, another person's cost of consuming it is zero.⁴³⁷ An efficient supply of public goods cannot be guaranteed by the market, but only by state intervention.

A similar problem is the existence of *externalities*,⁴³⁸ situations in which market transactions have effects on individuals who did not participate in the transaction. In consequence, social and private costs or benefits of the consumption of goods differ. If a positive externality prevails, less than the efficient amount of a good is supplied by the market. If negative externalities exist, from the point of view of the society, more than the efficient amount of a good is being consumed.⁴³⁹ For example air pollution implies social costs that do not enter into the production decision of private enterprises, and consequently natural resources are overused. Certainly externalities are a problem in market economies, but one can assume that it is not exclusively an issue of any particular economic system and is therefore an equally grave problem in centrally planned economies.⁴⁴⁰

Perfect competition is a prerequisite for several aspects of efficiency. The reality of market economies is often one of oligopolies and monopolies.⁴⁴¹ The consequences of *market power* are prices above and produced quantities below the competitive level. Hence less productive resources are allocated to sectors of imperfect competition than

⁴³⁵ Cf. Rogall, p. 115.

⁴³⁶ Cf. Gregory & Stuart, p. 21.

⁴³⁷ Cf. M. L. Katz & H. S. Rosen, *Microeconomics*, R. D. Irwin, Homewood et al., 1991, p. 657.

⁴³⁸ Cf. Balassa, p. 9.

⁴³⁹ Cf. Katz & Rosen, p. 438.

⁴⁴⁰ Cf. Gutzeit, pp. 151-2.

⁴⁴¹ Cf. O. Lange, 'On the economic theory of socialism', in O. Lange & F. M. Taylor (ed.), *On the economic theory of socialism*, 2nd ed., University of Minnesota Press, Minneapolis, 1948, p. 107.

would be efficient. These resources will either be employed in industries in which their marginal yield is less or are left unemployed.⁴⁴²

Disequilibria and *economic crises* are prevalent in market systems.⁴⁴³ These phenomena lead to the shrinkage of output and widespread *unemployment* of productive resources.⁴⁴⁴ The idleness of productive resources, especially of labour is paradoxical, since '[o]ne set of people is short of goods, another, it may be the same set, is short of work that might produce the goods'⁴⁴⁵. Some authors argue that centrally planned systems can avoid such inefficiencies.⁴⁴⁶

Only consumers with purchasing power can influence the production process in a market economy.⁴⁴⁷ Since post-tax available income is usually very uneven, the purchasing power of the rich has the biggest impact on production decisions. Productive resources are thus directed to the satisfaction of the less urgent needs of the rich (e.g. luxury goods) and not sufficiently to the basic and most urgent needs of the poor (e.g. nutrition, housing, and education).⁴⁴⁸ Since the purchasing power is very uneven, the demand price does not reflect the relative urgency of the needs of different consumers. Productive resources are inefficiently allocated and the maximum social welfare is not attained.⁴⁴⁹ *Inequalities* in market systems therefore lead to technical inefficiencies (misallocation of productive resources) and economic inefficiencies (the impairment of consumer sovereignty).

There are many forms of plan failure, one could in fact mention innumerable deficiencies of centrally planned systems. In the following I will sum up the most important aspects into nine points: (i) information problems, (ii) incentive problems, (iii) control and enforcement problems, (iv) the influence of politics, (v) allocation problems (vi) adaptivity and flexibility, (vii) innovation problems, (viii) externalities, (ix) black mar-

⁴⁴² Cf. A. C. Pigou, *Socialism versus capitalism*, Macmillan, London, 1937, p. 39.

⁴⁴³ Cf. Rogall, p. 115.

⁴⁴⁴ Cf. Lange, pp. 105-6.

⁴⁴⁵ Pigou, *Socialism versus Capitalism*, p. 47.

⁴⁴⁶ Cf. *ibid.*, p. 67, and cf. Lange, pp. 105-6.

⁴⁴⁷ Cf. Lampert & Bossert, p. 63.

⁴⁴⁸ Cf. Pigou, *Socialism versus Capitalism*, p. 21.

⁴⁴⁹ Cf. Lange, pp. 99-100.

kets. Some of these problem sets cannot be separated accurately, nevertheless they describe distinct phenomena.

Points (i) up to (iii) for example, are interconnected. In spite of that fact, all three points are dealt with separately, where (i) stands for the problem of the existence, finding and computation processes of information, whereas (ii) is not concerned with the incentives to give or to use information but with incentives to merit. And while (ii) is a bottom-up perspective, (iii) means rather the perspective of the planning board and thus a top-down approach. I will now turn to each category in detail.

In order to make reasonable planning decisions the planning board needs information about the available resources, the optimal production techniques and the preferences of the consumers.⁴⁵⁰ It can obtain this information only with the help of the consumers and enterprises.⁴⁵¹ Several difficulties emerge: Firstly, the information might not be available at all.⁴⁵² Consumers for example might not be able to formulate their needs of the coming planning period in advance. Also the incentives to transfer correct information are flawed.⁴⁵³ Presumably consumers might be reluctant to reveal their real preferences for instance for goods like Viagra, psychotherapy, critical literature, etc. Incentives for enterprises to transfer realistic information are malfunctioning as well, which will become clear after the discussion of ‘soft plans’. Apart from that, asymmetric information prevails between the planning board and the enterprises. Individual enterprises will always have an advantage over the planning authorities since they have much better insight into internal production processes.⁴⁵⁴ Furthermore, only quantitative information can be transferred to the planning board, qualitative information as changes in technology, skills of workers, etc. are problematic in this respect.⁴⁵⁵ The available data will be very complex and given the limited capacities of any planning authority,⁴⁵⁶ only very

⁴⁵⁰ Cf. Baßeler, p. 76.

⁴⁵¹ Cf. O. Sik, *Wirtschaftssysteme: Vergleiche, Theorie, Kritik*, Springer, Berlin, 1987, p. 78.

⁴⁵² Cf. Bernholz & Breyer, p. 144.

⁴⁵³ Cf. *ibid.*, p. 146.

⁴⁵⁴ Cf. Leipold, *Wirtschafts- und Gesellschaftssysteme*, p. 226.

⁴⁵⁵ Cf. Sik, p. 79.

⁴⁵⁶ Cf. Bernholz & Breyer, p. 151.

rough, aggregated data will be dealt with.⁴⁵⁷ It follows that the data over which the planning authorities command will be flawed from the start.⁴⁵⁸ Even taking the data as given it is questionable whether the planning board with its limitations and the costs of data processing, will be able to build an efficient plan from the available information. In market economies these *information problems* are solved with the use of market prices.⁴⁵⁹

‘An incentive mechanism should induce participants at lower levels (agents) to fulfil the directives of participants at higher levels (principals).’⁴⁶⁰ Such a mechanism is necessary since bureaucrats, households, and managers all have different interests,⁴⁶¹ and neither is identical with the public interest. The central plan for an economy has the characteristics of a law. Plan fulfilment is thus regulated by law. In addition there are monetary incentives for the fulfilment and over-fulfilment of the plan in form of bonuses.⁴⁶² Consequently managers and households pursue the maximisation of bonuses. Since bonuses can amount to 50 to 70 percent of income they play a central role in the budgets of households. In many centrally planned economies bonuses became a quasi-permanent part of income and many households relied on receiving bonus payments.⁴⁶³ This also means that managements are under constant pressure from ‘above’ and ‘below’ to earn bonuses by plan fulfilment. The central planning board exercises pressure on directors as do the workers.⁴⁶⁴ At the same time a company’s management is involved in the plan forming process, which leads to the formulation of ‘soft plans’.⁴⁶⁵ Managements have an incentive to work towards low targets in the plan of the next period, in order to be able to fulfil the future plan easily. The same incentives are at work in the context of inventories and capacities. If plan fulfilment is already achieved, managers will aim at increasing inventories rather than present production. Also there is a

⁴⁵⁷ Cf. Sik, p. 79.

⁴⁵⁸ Cf. Rogall, p. 118.

⁴⁵⁹ Cf. Baßeler, p. 55.

⁴⁶⁰ Gregory & Stuart, p. 23.

⁴⁶¹ Cf. Baßeler, p. 55.

⁴⁶² Cf. Leipold, *Wirtschafts- und Gesellschaftssysteme*, p. 236.

⁴⁶³ Cf. Balassa, pp. 132-3.

⁴⁶⁴ Cf. Leipold, *Wirtschafts- und Gesellschaftssysteme*, p. 239.

⁴⁶⁵ Cf. *ibid.*, p. 241.

tendency to install spare capacities, which will make it easier to reach higher targets in the future. The strongest incentive is towards a small over-fulfilment of the current plan. In that case managements and workers receive their bonuses and at the same time they prevent receiving significantly higher target values for the future.

Furthermore the formulation of target values is problematic. Planners can for example either set the target to produce a particular number of nails or to set the target in terms of the total weight of all nails produced. In the former case the enterprise will try to produce particularly small nails and in the latter to produce particularly heavy nails, in both cases to reach the target as easily as possible.⁴⁶⁶ Consequently in centrally planned economies those enterprises are rewarded which fulfil a plan, the softer the better, instead of those enterprises which work economically and produce according to consumers' needs. That holds even if it involves waste of productive resources, lack of innovations and deteriorating quality.⁴⁶⁷ This shows that plan fulfilment is neither equal to cost effectiveness⁴⁶⁸ nor to production according to consumers' preferences⁴⁶⁹ and thus is not equivalent to economic efficiency.

To sum up the *incentive problem*, centrally planned economies have firstly multiple criteria (e.g. number of nails, maximum of resources available, etc.) instead of just a single measure of success as profitability would be. Secondly, incentives are discontinuous and thus lead to a dichotomy between success and failure. Agents will act according to an 'all-or-nothing philosophy'⁴⁷⁰ with the consequence of lethargic behaviour (or even building up of inventories) if reaching the targets no longer seems possible any longer or irrational spurts in order to fulfil the plan in the last minute.⁴⁷¹

Incentives are an automatic sanction mechanism. As has been shown, incentives are mainly built on the positive incentive to receive bonuses for plan fulfilment. A negative

⁴⁶⁶ Cf. Bernholz & Breyer, pp. 187-91.

⁴⁶⁷ Cf. Sik, p. 127.

⁴⁶⁸ Cf. Hensel, p. 142.

⁴⁶⁹ Cf. H. Leipold, 'Planversagen versus Marktversagen', in H. Hamel (ed.), *Bundesrepublik, DDR – Die Wirtschaftssysteme: Soziale Marktwirtschaft, Sozialistische Planwirtschaft im Systemvergleich*, 3rd ed., C. H. Beck, Munich, 1979, p. 182.

⁴⁷⁰ Brown & Neuberger, p. 185.

⁴⁷¹ Cf. *ibid.*

automatic *sanction and enforcement* mechanism for the failure to fulfil plans is missing. In market economies the ultimate sanction for inefficient behaviour is insolvency.⁴⁷² Apart from the absence of bonuses, inefficient behaviour can only be sanctioned discretionary. Planning authorities are in no position to judge whether missing the target is due to a lack of productive resources, laziness, poor quality of the allocated labour force or mistakes of the management. To a certain degree all discretionary sanctions will then be arbitrary, since it is neither possible to always sanction failure nor to never sanction it. What is more, transfer of wrong data to the planning board cannot be sanctioned properly. Mainly those enterprises which have fulfilled the plan have an incentive to manipulate the data whereas those which have failed the target cannot hide their failure anyway.⁴⁷³ This makes it very difficult for the planning authorities to detect fraud in data transfer.

A further problem of the centrally planned system is the *influence of politics* on the economy. Politics favours the short term satisfaction of the needs of consumers with the intention of preventing burgeoning discontent. This often happens at the expense of measures for the long term consolidation of the economy.⁴⁷⁴ A further result of the influence of politics on the economy is the bias towards certain goods like public goods, defence goods and the socialisation of consumption.⁴⁷⁵ The problem of the influence of politics is to be seen as equivalent to the issue of market power in market economies. In centrally planned systems, the concentration of power in private hands can be neglected, instead economic power is concentrated in the hands of the state.⁴⁷⁶

For an efficient *allocation of resources* among other things it is necessary that every worker is allocated to that task for which he is trained or for which he is best suited. Since in centrally planned economies, workers are compulsorily assigned to certain jobs this is unlikely to happen. In addition wage differentials are much less than in market systems and thus incentives to attract the best workers are insufficient. And even if

⁴⁷² Cf. Baßeler, p. 56.

⁴⁷³ Cf. Bernholz & Breyer, p. 191.

⁴⁷⁴ Cf. D. Pollack, 'Auf dem Weg zu einer Theorie des Staatssozialismus', in *Historical Social Research*, vol. 28, no. 1, 2003, pp. 15-6.

⁴⁷⁵ Cf. Gregory & Stuart, p. 115.

⁴⁷⁶ Cf. Gutzeit, p. 150.

wage differentials are significant, they do not automatically correspond to different purchasing powers, due to a lack of available consumer goods. It follows that price and income signals do not function as a mechanism to allocate workers to their most productive use.⁴⁷⁷

A further aspect that shows how a central plan fails to allocate resources efficiently is foreign trade. Central planning by the method of budgeted balance sheets leads to the export of goods which are temporarily in excess supply and the import of goods which are temporarily in excess demand. Whereas the most efficient way would be to concentrate production on goods for which the economy has a competitive cost advantage and export them in exchange for goods for which the economy has a competitive cost disadvantage.⁴⁷⁸

The *adaptivity and flexibility* of the system is a major point of dispute.⁴⁷⁹ According to Friedrich A. Hayek it is even one of the most controversial issues between proponents and opponents of central economic planning. All economic decisions arise as a consequence of change. If change appears only occasionally then it is feasible to make long term plans that are only adjusted once in a while, for example at meetings of the planning board. But if, however, changes occur frequently, long term planning will fail. Only prices which change simultaneously can guarantee fast and correct adjustments of the system.⁴⁸⁰

‘Government creates scarcely anything . . . A government could print a good edition of Shakespeare’s work, but it could not get them written.’⁴⁸¹ The *lack of innovations* is a major issue in centrally planned economies. Since target values in the central plan are increasing from period to period there is an incentive to make the existing production processes more and more efficient. Incentives to create something entirely new, however, are absent.⁴⁸² The planning of innovations would have to take place before the

⁴⁷⁷ Cf. Bernholz & Breyer, pp. 202-3.

⁴⁷⁸ Cf. Brown & Neuberger, p. 186.

⁴⁷⁹ Cf. Lampert & Bossert, p. 43.

⁴⁸⁰ Cf. Sik, p. 33.

⁴⁸¹ Pigou, *Socialism versus Capitalism*, p. 80.

⁴⁸² Cf. Bernholz & Breyer, pp. 194-5.

planning of production. Since in reality most innovations occur during the plan realisation as processes of trial and error, an ex ante consideration of innovations in the planning process is not possible.⁴⁸³ This leads to the paradox that enterprises are not entitled to buy goods that are necessary for a newly invented production process on the market. Neither are they allowed to sell goods at the market that were not part of the central plan.⁴⁸⁴ Whereas in market economies there is an inherent incentive to innovations, since they offer the innovator a competitive advantage on the market, in centrally planned systems there is even a disincentive to innovations, because innovators have to reckon with higher target values in subsequent plans.⁴⁸⁵ In practice, centrally planned economies often circumvent their innovative weakness by adapting innovations from market economies.⁴⁸⁶

The problem of *externalities* is an equally serious issue in centrally planned economies as it is in market systems.⁴⁸⁷ One could argue that the empirical lack of environmental friendly technology is a disadvantage of centrally planned systems. Power plants in the German Democratic Republic for example had to use 70 % more coal in order to produce the same amount of electricity as power plants in Western Germany.⁴⁸⁸ On the other hand, this effect could be counterbalanced by a lesser intensity of production processes in centrally planned economies. Overall, it is to be expected that externalities are an equally serious problem in both market and centrally planned systems.

The pressure to fulfil plan requirements at certain deadlines favours the formation of illegal *black markets*. As has been shown, there is a tendency to the marginal over fulfilment of plans. If a company produced significantly more than was required it has an incentive to sell the excess supply on an illegal market rather than bringing the goods to the official market in order to avoid higher target values in the subsequent period.⁴⁸⁹ Even though this practice is unwanted, planning authorities are not interested in bring-

⁴⁸³ Cf. Leipold, 'Planversagen versus Marktversagen', p. 210.

⁴⁸⁴ Cf. Bernholz & Breyer, p. 199.

⁴⁸⁵ Cf. Hensel, p. 154.

⁴⁸⁶ Cf. Lampert & Bossert, p. 43.

⁴⁸⁷ Cf. Pigou, *Socialism versus Capitalism*, p. 44.

⁴⁸⁸ Cf. Gutzeit, pp. 151-2.

⁴⁸⁹ Cf. Bernholz & Breyer, pp. 187-8.

ing an end to it. Even the planning board is subordinate to a higher level in the hierarchy (e.g. the ministry, the dictator) and thus under the pressure to fulfil target values itself. Consequently it is interested in as many successful plan fulfilments as possible under its supervision. If black markets are conducive to the planning authorities' own interest, they will be ignored.⁴⁹⁰

4.4 Efficiency and the Economic System

It remains to draw some conclusions from the analysis of market- and centrally-planned economies with respect to the different aspects of the concept of efficiency that have been explored in chapter 4.2. As has been shown, efficiency is the ideal of both systems. The discussion is supposed to highlight, in how far this is also true in practice; that is, considering the above mentioned forms of market and plan failure. Since chapter 4.2 is based upon the microeconomics textbook formulations of efficiency (and thus the theory of market economies), the following analysis will speak mainly of the particularities of centrally planned systems as deviations from this theoretical background, unless specifically noted.

4.4.1 Technical Efficiency – Conclusions

In market economies, disequilibria, economic crises and unemployment result in a production below the production possibilities frontier and thus in a technically inefficient situation. Furthermore, market power leads to a reduced production; that is, to additional technical inefficiencies.

On the other hand, in centrally planned economies, the information problem means that the planning board does not even know what the exact resource endowments of the economy are, much less which combinations of factors would be efficient. According to the analysed dysfunctions of incentive, control and sanction systems, the planning authorities would not be able to allocate the resource in such a way as to achieve an efficient outcome. And also because of the inappropriate use of foreign trade, the centrally planned economy will stay below its production possibilities and therefore in a techni-

⁴⁹⁰ Cf. Bernholz & Breyer, p. 192.

cally inefficient state. One additional point has to be mentioned in terms of the adaptivity and flexibility of the system. Points on the production possibilities frontier are only efficient for a given amount of resources.⁴⁹¹ Whenever changes for example in the resource endowments occur, a centrally planned system is at best able to continue to work according to the old plan, which is no longer efficient. Only constantly changing prices are able to function as a mechanism for the flexible adaption of the economy to sudden changes.

Also in terms of the *efficient input supply and efficient input use* the practice of centrally planned economies deviates from the textbook economics of chapter 4.2. Firstly, resources are centrally allocated so that the supply decision of the household is a matter of obedience to the law rather than an economic decision. Secondly, resources are used with the intention of fulfilling the target values, not to maximise profit. Consequently resources might be over- or under-used and would only be accidentally used according to their marginal productivity (until their marginal utility is equal to their marginal cost).

The issue of *static vs. dynamic efficiency* is less clear. The decision, where to produce on the transformation curve; that is, how much of the resources to devote to the production of consumer goods or to investment, is dominated by consumers in market economies and by planners or bureaucrats in centrally planned economies.⁴⁹² Consumers are likely to be biased towards consumer goods, whereas decision makers in centrally planned economies have repeatedly shown to be biased towards investment. In fact, they usually aim at the maximisation of investment.⁴⁹³ One could therefore assume that centrally planned systems would rank higher in terms of dynamic efficiency. However, there are several countervailing effects. Firstly, incentives do not work towards the maximisation of the actual production, but to the minimisation of production requirements,⁴⁹⁴ which hinders dynamic efficiency. Secondly, it has been shown that there is a lack of innovation in centrally planned systems, which also tends to countervail the high investment rate of centrally planned economies.

⁴⁹¹ Cf. Gregory & Stuart, p. 44.

⁴⁹² Cf. *ibid.*, p. 44.

⁴⁹³ Cf. Eucken, 'On the theory', part 2, p. 181.

⁴⁹⁴ Cf. Baßeler, p. 77.

The economic system seems to make a difference even in terms of the *efficient scale of enterprises*. Economies of scale and standardisation make the process of central planning easier and at the same time competition loses its central role. Hence, the optimal size of the firm tends to be larger than in market economies.⁴⁹⁵

A price system in a centrally planned economy, will consist of more or less strictly fixed prices. It follows that the price system does neither represent utility valuations of consumers nor effective scarcity or cost relationships. As a consequence, the price system is not able to serve as the basis for utility maximisation and cost minimisation.⁴⁹⁶ Without an effective price system centrally planned economies cannot achieve the *maximisation of utility and the minimisation of costs* as the market economy does (cf. chapter 4.2.1.5).

4.4.2 Distributive Efficiency – Conclusions

Given the higher frequency of state interventions, centrally planned economies are likely to have a more equal distribution of income than market systems.⁴⁹⁷ But that does not hinder distributive efficiency understood as Pareto-efficiency. Consumers can choose and exchange goods freely, market prices indicate scarcity relations and therefore all possible Pareto-improvements can be attained by the consumers.

The discussion of the information problem in centrally planned economies makes clear that planning boards cannot know the true preferences of consumers. An administered distribution can therefore not constitute an efficient one. If consumers are allowed to

⁴⁹⁵ Cf. Eucken, 'On the theory', part 1, p. 95.

⁴⁹⁶ Cf. Sik, pp. 84-5.

⁴⁹⁷ The empirical evidence, however, is ambiguous. On the one hand, Gini-coefficients in market economies were significantly greater than in centrally planned economies (F. L. Pryor, *Property and industrial organization in communist and capitalist nations*, Indiana University Press, Bloomington, 1973, p. 84 comes to this conclusion for a comparison with data of the 1950s and 60s. B. Milanovic, 'Income, inequality, and poverty during the transition from planned to market economy', in *World Bank regional and sectoral studies*, no. 17419, Washington, 1998, p. 40 confirms this result for a dataset of the 1980s). On the other hand a comparison of the two different systems involves a great number of difficulties (cf. C. Morrisson, 'Income distribution in east European and western countries', in *Journal of Comparative Economics*, vol. 8, 1984 for a discussion of these issues). Morrisson comes to the conclusion that taking other factors besides Gini-coefficients into account, centrally planned systems do not have a more egalitarian income distribution (cf. Morrisson, p. 126). Then again, it seems clear that income distributions became significantly more unequal during the transition of former centrally planned to market economies, surpassing the level of OECD countries (cf. United Nations Development Programme, *Human development report 1999*, New York, 1999, p. 39).

exchange assigned goods among each other they would be able to realise some possible Pareto-improvements. That of course does first of all not mean that consumers get what they need (in terms of perfect consumer sovereignty) and secondly, it is unlikely that all possible Pareto-improvements will be realised. Exchange processes between individual households will take place locally so that different exchange relations will come into existence at different places. Furthermore, consumers will not be aware of the complete variety of supplied goods, for example at remote locations of the economy and in particular would not be able to attain, oversee and compute all the relevant information that would be expressed in competitive prices. If the planning board sets administered prices, they would not effectively express scarcity relations and therefore they could not bring about efficient distributions. Queuing, rationing and an excess supply of undesired goods would prevent efficiency.

Often the state intervenes in order to bring about a politically desired distribution. Especially some goods, for example jobs in leading positions, university places and luxury goods would regularly be distributed according to one's loyalty to the system, particular political merits etc., instead of being distributed according to merit.⁴⁹⁸

What has been said about the adaptivity and flexibility in the context of technical efficiency is also relevant for distributive efficiency. If changes in the economy occur, centrally planned systems are forced to continue to work according to the old plan in the short run. The distribution that resulted from the old plan is no longer efficient, however. This problem would be solved by a system of free, competitive prices in market economies. New relative prices would form and the distribution of goods would change according to these new prices. A centrally planned economy can only react by changing the central plan, which will take time and at least until then, distribution will remain inefficient.

Finally, black markets do in fact help to realise an efficient distribution since they make further Pareto-improvements possible. Nevertheless they are of course not desired by the state, probably because they hint at dysfunctions of the system.

⁴⁹⁸ Cf. Gutzeit, p. 149.

4.4.3 Efficient Output Mix – Conclusions

As has been discussed in chapter 4.3.3 consumer sovereignty is imperfect even in market economies. Hence, consumers do not necessarily get to consume what they really desire. Also market power and inequalities add to this. Big international corporate groups have a high influence on the consumer and conversely households with particularly high purchasing power have a much greater influence on production decisions of enterprises than have those with lower incomes.

Moreover, the existence of public and merit goods as well as externalities means that markets do not lead to an efficient output mix without the intervention of the state. The problem of externalities exists in both kinds of systems. In centrally planned economies, however, several other aspects have to be considered as well. The information problem for instance means that the planning board does not know the actual preferences of the consumers and can therefore not decide what to produce in an economically efficient way.

Besides, there are incentives to fulfil the central plan. But that is not identical with incentives to produce as desired by the market or consumers, respectively. The state has different interests than individual households. Whenever the state interferes with the market, it often leads to a bias of production towards certain goods (e.g. armament).

In a standard neoclassical framework, the number of choices available to the consumer does not specifically enter into the definition of efficiency. If the consumer, however, values a variety of possibilities, it could be argued that the lack of product innovations in centrally planned systems diminishes economic efficiency, since it does not produce what consumers desire.

4.5 Final Remarks

It has been shown that the three main aspects of the overall concept of economic efficiency are technical efficiency, distributive efficiency and efficiency of the output mix. Economic efficiency in the comprehensive sense is given only if all three aspects are fulfilled. These three aspects of efficiency are closely related to the three questions that every economic system tries to answer: how to produce (technical efficiency), for who to produce (distributive efficiency) and what to produce (efficient output mix).

Both market and centrally planned systems strive for the ideal of efficiency. In practice, however, market failures and plan failures exist, which hinder the achievement of economic efficiency. The price mechanism of market economies seems to be a very effective remedy for many problems of centrally planned systems.

Having the strength of market systems in terms of efficiency in mind, there must be other values and norms that lead decision makers to the formation of centrally planned systems or to speak with Ludwig van Mises⁴⁹⁹:

‘The knowledge of the fact that rational economic activity is impossible in a socialist commonwealth cannot, of course, be used as an argument either for or against socialism. Whoever is prepared himself to enter upon socialism on ethical grounds on the supposition that the provision of goods of a lower order for human beings under a system of a common ownership of the means of production is diminished, or whoever is guided by ascetic ideals in his desire for socialism, will not allow himself to be influenced in his endeavours by what we have said . . . But he who expects a rational economic system from socialism will be forced to re-examine his views.’⁵⁰⁰

This chapter could not deal with competing motives behind economic systems besides efficiency. It is clear, however, that also market systems consider values and norms aside from pure economic efficiency. According to Friedrich August Hayek, for example, the main problem of centrally planned systems is not that planning leads to inefficiency, but that it leads to ‘serfdom’. Central planning is therefore a contradiction to democracy, since democracy ‘is an obstacle to the suppression of freedom which the direction of economic activities requires.’⁵⁰¹

⁴⁹⁹ He speaks of ‘socialism’ instead of ‘central planning’. But in the context of this quotation, both terms are interchangeable.

⁵⁰⁰ L. von Mises, ‘Economic calculation in the socialist commonwealth’, in N. G. Pierson & F. A. von Hayek (ed.), *Collectivist economic planning*, 6th ed., Routledge, London, 1963, p. 130.

⁵⁰¹ F. A. von Hayek, *The road to serfdom*, Chicago University Press, Chicago, 1944, p. 70.

5 The Concept of Justice in the History of Economic Thought

5.1 Introduction

‘Is there a just distribution of economic goods?’⁵⁰² In 1894 Gustav Schmoller observed a renaissance of the question of justice in the public debate⁵⁰³ and we could equally well come to the same conclusion today. Few issues are similarly prevalent in contemporary public discourse. Be it the question of justice and public deficits⁵⁰⁴ or the alleged social injustice of a limit to public debt⁵⁰⁵, the justness of collective wage agreements⁵⁰⁶ and managerial salaries⁵⁰⁷, the discussion about the euro-zone rescue pact,⁵⁰⁸ debates about income distribution⁵⁰⁹ and reforms of the tax system⁵¹⁰ or the decision of the European

⁵⁰² G. Schmoller, ‘The idea of justice in political economy’, in *The annals of the American academy of political and social science*, vol. 4, no. 1, 1894, p. 697.

⁵⁰³ Cf. *ibid.*, p. 697: ‘Is there a just distribution of economic goods? Or should there be? This is a question which is raised again today, a question which has been asked as long as human society and social institutions have existed. The greatest thinker of ancient history asked the question and thousands after him have repeated it, sages and scholars, great statesmen and hungry proletarians, thoughtful philanthropists and enthusiastic idealists.’

⁵⁰⁴ Cf. R. Hank, ‘Debatte: Staatsschulden sind gar nicht so übel’, in *Frankfurter Allgemeine Zeitung*, 19 December 2010, retrieved 23 February 2012, <<http://www.faz.net/s/Rub0E9EEF84AC1E4A389A8DC6C23161FE44/Doc~E9409B57A082A47E1961B0DB13A0C45E4~ATpl~Ecommon~Scontent.html>>.

⁵⁰⁵ Cf. M. Schott, *Welttag der sozialen Gerechtigkeit: Die Schuldenbremse wird zum Gaspedal für mehr soziale Ungerechtigkeit*, press release 18 February 2011, retrieved 23 February 2012, <<http://www.linksfraktion-hessen.de/cms/abgeordnete/die-abgeordneten/marjana-schott/pressemitteilungen/2107-welttag-der-sozialen-gerechtigkeit-die-schuldenbremse-wird-zum-gaspedal-fuer-mehr-soziale-ungerechtigkeit.html>>.

⁵⁰⁶ Cf. H. Roßbach, ‘Tarifrunden 2011: Ein teures Jahr für Arbeitgeber’, in *Frankfurter Allgemeine Zeitung*, 20 January 2011, retrieved 23 February 2012, <<http://www.faz.net/s/Rub4D8A76D29ABA43699D9E59C0413A582C/Doc~E1701DC754D41410BBC4DD03503B2234B~ATpl~Ecommon~Scontent.html>>.

⁵⁰⁷ Cf. R. Euler, ‘“Hessen-Gipfel“ der SPD: Bankmanager kontra Krankenschwester’, in *Frankfurter Allgemeine Zeitung*, 18 January 2011, retrieved 23 February 2012, <<http://www.faz.net/s/Rub5785324EF29440359B02AF69CB1BB8CC/Doc~ED2EA212A104B4E6C80579FD0B0EC3691~ATpl~Ecommon~Scontent.html>>.

⁵⁰⁸ Cf. R. Hank & K. Mrusek, ‘Wolfgang Schäuble im Interview: “Wenn Portugal Hilfe braucht, stehen wir bereit”’, in *Frankfurter Allgemeine Zeitung*, 16 January 2011, retrieved 23 February 2012, <<http://www.faz.net/s/Rub3ADB8A210E754E748F42960CC7349BDF/Doc~E79C1401EF71649D3B4EFE53381C06835~ATpl~Ecommon~Scontent.html>>.

Court of Justice to demand equal insurance premiums for men and women⁵¹¹, the concept of justice is on the public agenda. What do economists contribute to this? Surprisingly little. Just to give an impression: Two particularly popular textbooks on micro- and macroeconomics by Hal R. Varian and Olivier Blanchard, respectively, do not even mention the issue of justice.⁵¹² Economics has become the science of efficiency.⁵¹³ This, however, is in stark contrast to the intentions of the founders of the subject.⁵¹⁴ The history of economic thought has a long and rich tradition of contemplation on the issue of justice.⁵¹⁵ Off the beaten track there remain some economists who perceive the exclusive focus on efficiency as an impoverishment of economic thought,⁵¹⁶ however, mainstream economics – i.e. neoclassical economics – has banned the concept of justice from its focus.

This chapter traces the contemplation on justice in the history of economic thought. Starting with early approaches in Ancient Greece, Rome and even before (chapter 5.2), over the debate on the just price and the combination of Aristotelian philosophy with biblical tradition in the Middle Ages (chapter 5.3), the influence of the reformation and the enlightenment on the concept of justice in the Early Modern Period (chapter 5.4), to the Modern Era with essential developments such as classical economic theory, utilitarianism and the Historical Schools (chapter 5.5). The final chapter presents some contem-

⁵⁰⁹ Cf. P. Bernau, 'Einkommen: Macht Ungleichheit krank?', in *Frankfurter Allgemeine Zeitung*, 03 February 2011, retrieved 23 February 2012, <<http://www.faz.net/s/RubB8DFB31915A443D98590B0D538FC0BEC/Doc~E74591FB6647442179B54825A6121F060~ATpl~Ecommon~Scontent.html>>.

⁵¹⁰ Cf. N. N., 'Schäuble: Begrenzte Steuersenkungen möglich', *Stuttgarter Zeitung*, 07 March 2011, retrieved 24 March 2011, <<http://www.stuttgarter-zeitung.de/inhalt.steuern-schaeuble:-begrenzte-steuersenkungen-moeglich.4078179a-2fb0-4b56-8677-c47223ba7aea.html>>.

⁵¹¹ Cf. T. Groll, 'Versicherungen: Gleichbehandlung könnte alle mehr kosten', *Zeit Online*, 01 March 2011, retrieved 23 February 2012, <<http://www.zeit.de/wirtschaft/geldanlage/2011-03/versicherung-unisex-tarife>>.

⁵¹² Cf. H. R. Varian, *Intermediate microeconomics: A modern approach*, 6th ed., EWP, New Delhi, 2003, and cf. O. Blanchard, *Macroeconomics*, 4th ed., Prentice Hall, New Jersey, 2006.

⁵¹³ Cf. S. Panther, 'Gerechtigkeit in der Ökonomik: Empirische Ergebnisse und ihre möglichen Konsequenzen', in H. G. Nutzinger (ed.), *Gerechtigkeit in der Wirtschaft: Quadratur des Kreises?*, Metropolis, Marburg, 2006, p. 22.

⁵¹⁴ Cf. Schmoller, 'The idea of justice', p. 698.

⁵¹⁵ Cf. *ibid.*, p. 115, and cf. H. G. Nutzinger, 'Ökonomik und Gerechtigkeit: Grundsätzliche Überlegungen und der Anwendungsfall Klimapolitik', in T. Beschorner et al. (ed.), *Wirtschafts- und Unternehmensethik: Rückblick, Ausblick, Perspektiven*, Mering Hampp, Munich et al., 2005, p. 384.

⁵¹⁶ Cf. Sen, *On ethics and economics*, p. 7.

porary approaches to justice (chapter 5.6): some thinkers of ordoliberalism, the ‘Theory of Justice’ by John Rawls, the ‘Idea of Justice’ by Amartya Sen, and some remarks from economic ethics.

5.2 Early Approaches

Systematic philosophical and scientific contemplation on the idea of justice can be found for the first time in the writings of Plato.⁵¹⁷ But even before, in archaic societies, a perception of justice existed, not in the sense of abstract principles, but rather as an implicit element of morality. In archaic, self-subsistent societies, there was a sense of ‘the right rate of exchange’. As long as such societies traded among themselves, these exchange rates remained fairly constant, but when trading in exchange for foreign – in particular European – goods, there were no ‘right exchange rates’ according to tradition, and this resulted in disorder. Here, traditional exchange rates built a reference point for social justice and morality.⁵¹⁸

The state in the form of the tribal god-king played an important role in the development of justice, law and freedom as institutionalised values. Originally trade and barter were perceived as gainful, antisocial, and a threat to the cohesion of the clan. Only the action of the god-king as the ‘fount of justice’⁵¹⁹ was able to remove ‘the tribal ban on transactions by eliminating the stigma of gain, with its disruptive implications.’⁵²⁰

5.2.1 Plato

For the ancient Greeks, economics was part of ethics and ‘the study of economic problems therefore was subordinate to the solution of the more important problems of ethics and jurisprudence.’⁵²¹ The question of justice had priority over the issue of an efficient

⁵¹⁷ Cf. P. Trude, *Der Begriff der Gerechtigkeit in der aristotelischen Rechts- und Staatsphilosophie*, de Gruyter, Berlin, 1955, p. 24.

⁵¹⁸ Cf. F. Furger, *Ökologische Krise und Marktmechanismen: Umweltökonomie in evolutionärer Perspektive*, Westdeutscher Verlag, Opladen, 1994, pp. 166-8.

⁵¹⁹ K. Polanyi, *The livelihood*, p. 16.

⁵²⁰ *Ibid.*, p. 74.

⁵²¹ H. R. Sewall, *The theory of value before Adam Smith*, Kelley, New York, 1968, first published in 1901, p. 7.

allocation of resources. The contemplation of justice did not follow some kind of divine revelation but was a matter of philosophical reasoning.⁵²² Even though Plato sometimes referred to justice as ‘divine’, he saw it as a secular phenomenon with its final justification lying in the idea of the good.⁵²³

Plato distinguished three parts of the soul: reason, spiritedness, and desire. To each part of the soul corresponds a certain virtue: Wisdom corresponds to reason, courage to spiritedness and temperance to desire. Justice as a fourth virtue ensures that every part of the soul fulfils its proper function. Justice, therefore, has the function of organising all other virtues.⁵²⁴ The ‘having and doing of one’s own would be accepted as justice.’⁵²⁵ Here, ‘to each his own’ does not primarily mean a just distribution of goods but a distribution of functions and activities.⁵²⁶

Plato was mainly interested in social justice rather than distributive justice. Justice aims at social cohesion,⁵²⁷ injustice on the other hand destroys the society.⁵²⁸ Extreme poverty as well as extreme wealth in this regard are a danger to society,⁵²⁹ and thus Plato suggested that no man should own more than four times the possessions of someone else.⁵³⁰

Concerning prices, Plato postulated that nobody should ever charge two different prices for the same good.⁵³¹ In addition to the postulate of uniform prices, goods should be

⁵²² Cf. W. Kerber, C. Westermann & B. Spörlein, ‘Gerechtigkeit’, in F. Böckle, F.-X. Kaufmann & K. Rahner (ed.), *Christlicher Glaube in moderner Gesellschaft*, no. 17, Herder, Freiburg, 1982, p. 32.

⁵²³ Cf. O. Höffe, *Gerechtigkeit: Eine philosophische Einführung*, 2nd ed., C. H. Beck, Munich, 2004, p. 20.

⁵²⁴ Cf. *ibid.*, p. 21.

⁵²⁵ Plato, ‘Republic’, translation G. M. A. Grube & C. D. C. Reeve, in J. M. Cooper (ed.), *Plato: Complete works*, Hackett, Indianapolis, 1997, originally: *Πολιτεία* around 380 BC, 433e.

⁵²⁶ Cf. Höffe, *Gerechtigkeit*, p. 21.

⁵²⁷ Cf. Schefold, *Wirtschaftsstile*, p. 123.

⁵²⁸ Cf. F. Schinzinger, ‘Vorläufer der Nationalökonomie’, in O. Issing (ed.), *Geschichte der Nationalökonomie*, 4th ed., Vahlen, Munich, 2002, p. 17.

⁵²⁹ Cf. Plato, ‘Republic’, 421-2, and cf. Schefold, *Wirtschaftsstile*, p. 123.

⁵³⁰ Cf. Plato: *Laws*, 744e-745a. Cf. Schefold, *Wirtschaftsstile*, p. 125.

⁵³¹ Cf. Plato: *Laws*, 917b-c. Cf. Schefold, *Wirtschaftsstile*, p. 121.

traded for their ‘real value’. It remains open, what this ‘real value’ is, but some interpretations conclude that Plato’s criterion are the costs of production.⁵³²

5.2.2 Aristotle

According to Aristotle, justice is the most perfect virtue.⁵³³ Like all other virtues, it is a mean between extremes:⁵³⁴ ‘just action is intermediate between acting unjustly and being unjustly treated; for the one is to have too much and the other to have too little.’⁵³⁵ Injustice in contrast relates to extremes.⁵³⁶

Aristotle distinguished between *general justice* and *particular justice*. ‘Both the lawless man and the grasping and unfair man are thought to be unjust, so that evidently both the law-abiding and the fair man will be just.’⁵³⁷ Thus, acting in accordance with general justice means to act in accordance with the law.⁵³⁸ This includes also the unwritten law, the particular nature Zeus has assigned to every creature.⁵³⁹ General justice therefore orders the social life and it can be distinguished from the other virtues by its being concerned with other members of society.⁵⁴⁰

Particular justice assigns shares to different individuals.⁵⁴¹ Whereas not acting in accordance with general justice means to be a transgressor of law (*Übertreter*), not acting according to particular justice means to violate equality (*Übervorteiler*).⁵⁴²

Particular justice can furthermore be differentiated into *distributive justice* and *rectificatory justice*. Distributive justice means the distribution of honour, money and other goods.⁵⁴³ An unequal distribution can be in accordance with distributive justice, as long

⁵³² Cf. e.g. Schinzinger, p. 17.

⁵³³ Cf. Mathis et al., p. 186.

⁵³⁴ Cf. Schinzinger, p. 19.

⁵³⁵ Aristotle, p. 121, book V 1133b.

⁵³⁶ Cf. *ibid.*, p. 121, book V 1133b.

⁵³⁷ *ibid.*, p. 107, book V 1129a.

⁵³⁸ Cf. Schefold, *Wirtschaftsstile*, p. 140.

⁵³⁹ Cf. Trude, p. 57.

⁵⁴⁰ Cf. *ibid.*, pp. 57-9.

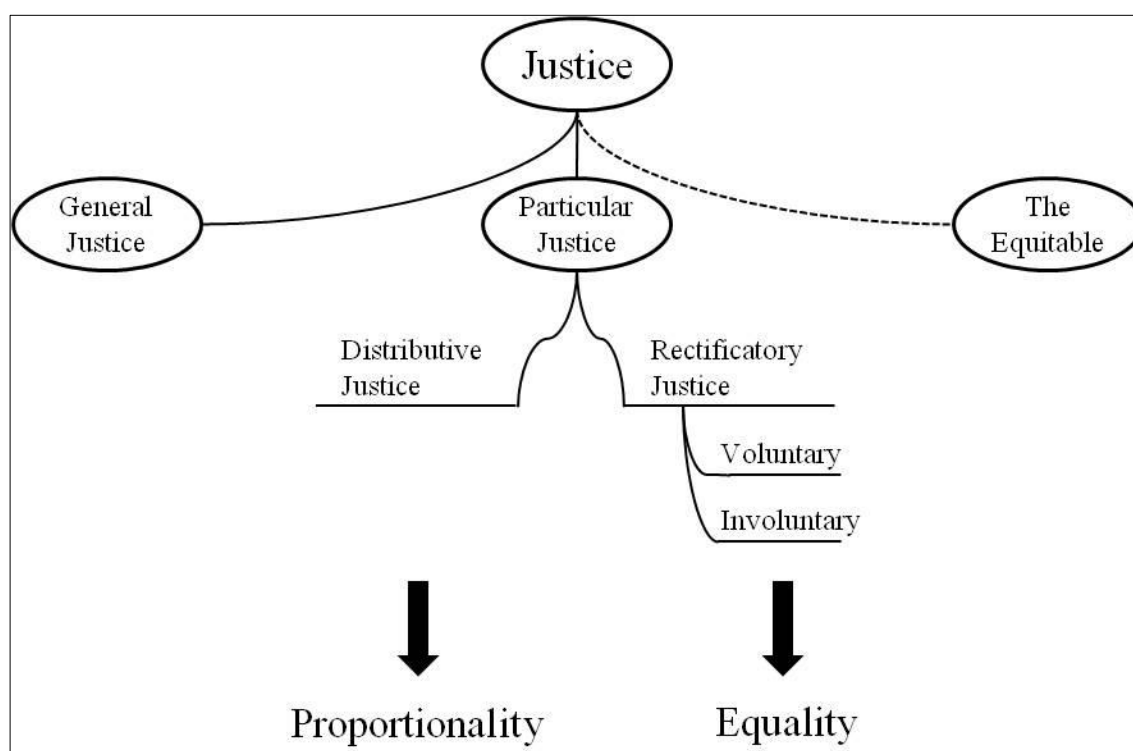
⁵⁴¹ Cf. Schefold, *Wirtschaftsstile*, p. 141.

⁵⁴² Cf. Trude, p. 90.

⁵⁴³ Cf. Aristotle, p. 111, book V 1130b. Cf. Schefold, *Wirtschaftsstile*, p. 141.

as all distribution takes place according to the same criteria.⁵⁴⁴ Instead of equality, distributive justice is based on proportionality.⁵⁴⁵ A ‘distribution of moneys [sic] from the public treasury which follows the same ratio as the respective contributions (to the public revenues) bear to one another.’ Put in mathematical terms: ‘The shares of A and B being C and D respectively, $A:B = C:D$; and it follows *alternando* that $A:C = B:D$ and hence the wholes are in the same ratio; that is, $(A+C):(B+D)=A+B$ and the original ratio of A to B is preserved after the distribution.’⁵⁴⁶

Figure 14: Aristotle and Justice



Source: Author, referring to B. Schefold, *Wirtschaftsstile – Band 1: Studien zum Verhältnis von Ökonomie und Kultur*, Fischer, Frankfurt am Main, 1994.

Rectificatory justice plays a corrective role in transactions between individuals, which can be either voluntary or involuntary transactions. An example for corrective justice in voluntary transactions is justice in sales and purchases; an example for justice in involuntary transactions is correcting or sanctioning theft or murder.⁵⁴⁷ In this context indi-

⁵⁴⁴ Cf. Mathis et al., p. 187.

⁵⁴⁵ Cf. Aristotle, pp. 112-3, book V 1131a. Cf. Schefold, *Wirtschaftsstile*, p. 141.

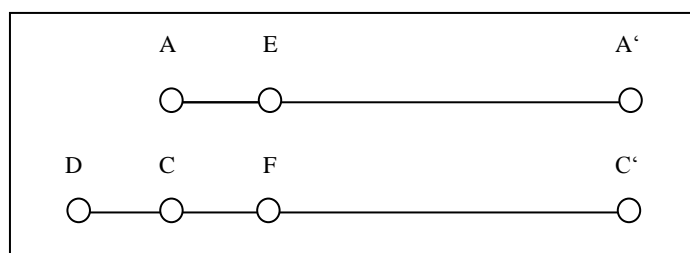
⁵⁴⁶ T. Heath, *Mathematics in Aristotle*, Oxford University Press, Oxford, 1949, pp. 272-3.

⁵⁴⁷ Cf. Mathis et al., p. 186.

viduals are treated equally,⁵⁴⁸ ‘compensation should be proportionate to the loss and the punishment proportionate to the wrong.’⁵⁴⁹

If for example individual V has lost AE in a transaction with individual M by means of deception (cf. figure 15), M has made a gain from the transaction whereas justice is the mean between gain and loss. Corrective justice demands to assign the arithmetical mean of what the individuals have too much and too little, to both parties $\frac{EA + DC}{2}$.⁵⁵⁰

Figure 15: Aristotle and Rectificatory Justice



Source: Cf. Aristotle, *Nicomachean Ethics*, ed. by D. Ross, Oxford University Press, Oxford, 1988, originally *ἠθικά Νικομάχεια*, around 350 BC, book V 1132b.

Therefore, whereas distributive justice corresponds to a geometrical proportion, corrective justice corresponds to an arithmetical proportion.⁵⁵¹ And, whereas corrective justice means equal treatment of individuals; distributive justice does not mean the equalisation of two individuals but of two relations.⁵⁵² Finally, whereas justice in voluntary transactions is a matter of civil law, justice in involuntary transactions is a matter of criminal law.⁵⁵³

A special case is *justice in exchange*, which is a part of reciprocity and as such it is neither simply identical with distributive nor with corrective justice. In some cases recip-

⁵⁴⁸ Cf. Aristotle, pp. 114-5, book V 1132a. Cf. Schefold, *Wirtschaftsstile*, p. 142.

⁵⁴⁹ Mathis et al., p. 186.

⁵⁵⁰ Cf. Aristotle, pp. 114-7, book V 1131b-1132b.

⁵⁵¹ Cf. Heath, pp. 272-3.

⁵⁵² Cf. Trude, p. 93.

⁵⁵³ Cf. Höffe, *Gerechtigkeit*, p. 24.

rocity can even be unjust. If for example an officer slaps a soldier, retaliation; that is, returning the slap would be unjust, because it would not be according to the law.⁵⁵⁴

The equitable is not legally just but it is just in the sense of being a correction of legal justice.⁵⁵⁵ The written law is necessarily general. In some particular cases it might be incorrect and then the equitable is an improvement of written law.⁵⁵⁶

To sum up, justice is if everyone fulfils his duties and receives what is rightfully his ('wenn jeder, der das Seinige tut, auch das Seinige erhält'⁵⁵⁷). That is not equivalent to an equal distribution, since people equal in status receive equal things, but people unequal in status receive unequal things.⁵⁵⁸ If justice in this sense prevails, the shoemaker has the shoe in mind, not the price he receives for it and a physician has his patients in mind, not the income he receives from treating them. The idea of doing what is yours to do (*das Seinige tun*) by maximising your profit and thereby achieving the best for society was alien to Aristotle.⁵⁵⁹

Aristotle considered chrematistics, acquisition as an end in itself, as unnatural. According to him, exchange of goods has to be a just exchange.⁵⁶⁰ This is a matter of a just price. In contrast to modern economists, Aristotle was not interested in *how* prices form in the market, but in the question *which* prices should prevail.⁵⁶¹ The price and 'what is rendered in return' have to be equivalent. Neither buyer nor seller 'is better or worse off after the trade.'⁵⁶² The just as an intermediate is therefore the mean between gain and loss.⁵⁶³

⁵⁵⁴ Cf. Aristotle, pp. 117-8, book V 1132b. Cf. Schefold, *Wirtschaftsstile*, pp. 142-3.

⁵⁵⁵ Cf. Schefold, *Wirtschaftsstile*, pp. 132-4, book V 1137b.

⁵⁵⁶ Cf. *ibid.*, and cf. Trude, p. 124.

⁵⁵⁷ Schefold, *Wirtschaftsstile*, p. 148.

⁵⁵⁸ Cf. Aristotle, pp. 112-3, book V 1131a. Cf. J. W. Baldwin, 'The medieval theories of the just price', in *Transactions of the American philosophical society*, vol. 49, pt. 4, 1959, p. 11.

⁵⁵⁹ Cf. Schefold, *Wirtschaftsstile*, p. 148.

⁵⁶⁰ Cf. Furger, p. 188.

⁵⁶¹ Cf. Polanyi, 'Aristotle discovers the economy'.

⁵⁶² Mathis et al., p. 192.

⁵⁶³ Cf. Aristotle, p. 117, book V 1132b.

5.2.3 Romans

In the context of the exchange of goods, the ancient Romans were not as focused on ethical considerations as were the ancient Greeks; freedom of contract had priority.⁵⁶⁴ As long as a transaction was free of *dolus* (i.e. cunning, deceit, fraud), bargaining of prices was relatively free. There were mainly two exceptions: the *edict of Diocletian* and the practice of *laesio enormis*.⁵⁶⁵ In his edict of 301 AD, Diocletian set a price ceiling on a multitude of prices.⁵⁶⁶ The price edict explicitly constricted itself to setting a maximum for prices, since regulating prices exactly and thereby taking away competitive advantages of particular provinces would be unjust.⁵⁶⁷ *Laesio enormis* ('excessive violation') applied if prices were unduly high or low. A price was considered to be too high, if it was higher than 150 % of the just price and too low, if it was below 50 % of the just price.⁵⁶⁸ Here the just price was usually perceived to be the normal and customary price as an outcome of free competition. This price was not a transcendental standard of value but specific to a certain time and place and specific to certain market conditions.⁵⁶⁹

5.3 Middle Ages

The church fathers and scholastics took their ancient predecessors in combination with the biblical scripture as their starting point. Thus, some words have to be said about justice in the Christian Bible.⁵⁷⁰

In the early scriptures of the Old Testament, a person is just, if the court decides in his favour. Justice was restricted to a particular situation. Later the differentiation became

⁵⁶⁴ Cf. Sewall, pp. 4-7.

⁵⁶⁵ Cf. Baldwin, pp. 16-8.

⁵⁶⁶ Cf. Diocletian, 'The edict of Diocletian', translation F. Tenney, based on T. Mommsen & H. Blümner, in F. Tenney (ed.), *Rome and Italy of the empire, An economic survey of ancient Rome*, vol. 5, Johns Hopkins Press, New Jersey, 1959, pp. 310-7.

⁵⁶⁷ Cf. *ibid.*, pp. 314-5.

⁵⁶⁸ Cf. H. W. Spiegel, *The growth of economic thought*, 3rd ed., Prentice Hall, New Jersey, 1971, pp. 60-1.

⁵⁶⁹ Cf. Baldwin, p. 20.

⁵⁷⁰ This could be a dissertation of its own. The presentation in this paper is restricted to a very brief sketch. Besides the general perception of justice, one could go into the ban on usury, regulation of obligations, rights of foreigners and slaves, the relationship between humans and animals etc. Cf. Schinzinger, p. 20.

more general between those who are just (pious) and those who are sinners (godless).⁵⁷¹ Justice was perceived as an objective phenomenon and in order to be just, one needed to act in accordance with God's revealed commandments.⁵⁷² Justice in the New Testament has two dimensions: Firstly, justice as a matter of a personal relationship with God and secondly, ethical behaviour as being necessary in order to be just.⁵⁷³ Further, the *justice of God* in the Bible means God's covenantal faithfulness. At first, faithfulness to Israel (Old Testament) and later faithfulness to all mankind (New Testament).⁵⁷⁴ Generally, mankind cannot achieve justice by means of their own efforts, but justice is a graceful gift by God.⁵⁷⁵

5.3.1 The Church Fathers

The Church Fathers built the foundation for Christian ethics, by a combination of Aristotelian philosophy and interpretations of the biblical scriptures⁵⁷⁶. Their ideas were thus deeply rooted in the Christian doctrines.⁵⁷⁷ The concept of justice was also central to Augustine's 'The City of God': 'In the absence of justice, what is sovereignty but organized brigandage?'⁵⁷⁸ 'Justice is the virtue which accords to each and every man what is his due.'⁵⁷⁹ For Augustine it was clear that justice on earth will always be imperfect⁵⁸⁰ and true justice is not attainable without the true religion.⁵⁸¹

Augustine acknowledged two systems of evaluating economic goods: one is evaluation by natural order, the other evaluation by utility. He perceived a natural order in all

⁵⁷¹ Cf. W. Kerber, C. Westermann & B. Spörlein, pp. 12-3.

⁵⁷² Cf. Höffe, *Gerechtigkeit*, p. 16.

⁵⁷³ Cf. W. Kerber, C. Westermann & B. Spörlein, p. 21.

⁵⁷⁴ Cf. Höffe, *Gerechtigkeit*, p. 16.

⁵⁷⁵ Cf. *ibid.*, p. 17.

⁵⁷⁶ Cf. Schinzinger, p. 19.

⁵⁷⁷ Cf. Baldwin, p. 13.

⁵⁷⁸ Augustine, 'The city of God: books I-VII', translation D. B. Zema & G. G. Walsh, in H. Dressler et al. (ed.), *The fathers of the church*, vol. 8, Catholic University of America Press, Washington, 1990, reprint of the first edition 1949, book IV ch. 4.

⁵⁷⁹ Augustine, 'The city of God: books XVI-XXII', translation G. G. Walsh & J. H. Daniel, in H. Dressler et al. (ed.), *The fathers of the church*, vol. 24, Catholic University of America Press, Washington, 1981, reprint of the first edition 1953, book XIX ch. 21. Cf. E. Salin, *Civitas Dei*, Mohr Siebeck, Tübingen, 1926, p. 188.

⁵⁸⁰ Cf. *ibid.*, ch. 27. Cf. Salin, *Civitas Dei*, p. 188.

⁵⁸¹ Cf. Augustine, 'The city of God: books XVI-XXII', book XIX ch. 21. Cf. Salin, *Civitas Dei*, p. 186.

things: ‘those that live are ranked higher than those that do not . . . the sentient are superior to the non-sentient . . . Among sentient beings, the intelligent are higher than the non-intelligent’ and so forth. On the other hand considerations of utility do not always follow this natural order: ‘sometimes we so prefer certain non-sentient things to others which are sentient . . . For, who would not rather have food in his house than mice, money than fleas?’⁵⁸² This system of value has been important for the scholastic concept of the just price.⁵⁸³ The Church Fathers themselves were not pursuing the determination of the just price. They were rather interested in a certain ethical attitude of the parties involved in economic exchanges.⁵⁸⁴

Augustine discussed the question whether everyone wants to buy cheap and sell dear. In this context he mentioned an example of somebody who paid significantly more than was expected of him when being offered a valuable manuscript by an ignorant salesman for a very cheap price.⁵⁸⁵ This attitude of the buyer was an ideal for the scholastics as well, but instead of having been interested in the attitude alone, the scholastics tried to determine what the just price would be exactly.⁵⁸⁶

5.3.2 The Scholastics

Simply stated, there were three groups of medieval authors: the Roman lawyers, the canonists and the theologians or scholastics.⁵⁸⁷ The romanists, standing in the tradition of the ancient Roman law, emphasised the freedom of bargaining. They developed a theory of the just price only in so far as they extended the practice of *laesio enormis* to all types of goods, not only to land.⁵⁸⁸ The canonists accepted *laesio enormis* to determine the just price for land. As a new aspect they advised to consider also the quality

⁵⁸² Augustine, ‘The city of God: books VIII-XVI’, translation G. G. Walsh & G. Monahan, in H. Dressler et al. (ed.), *The fathers of the church*, vol. 14, Catholic University of America Press, Washington, 1981, reprint of the first edition 1952, book XI ch. 16.

⁵⁸³ Cf. Baldwin, p. 15.

⁵⁸⁴ Cf. Schinzinger, p. 21.

⁵⁸⁵ Cf. Augustine, ‘The trinity’, in *The fathers of the church*, vol. 45, translation S. McKenna, Catholic University of America Press, Washington, 1963, book 13, ch. 3.

⁵⁸⁶ Cf. E. Salin, *Politische Ökonomie: Geschichte der wirtschaftspolitischen Ideen von Platon bis zur Gegenwart*, 5th ed., Mohr Siebeck, Tübingen et al., 1967, p. 34.

⁵⁸⁷ Cf. Baldwin, p. 8.

⁵⁸⁸ Cf. *ibid.*, pp. 21-3.

and the quantity of revenues from this land when assessing it. However, in the context of movable goods, where the element of rent is absent, the canonists usually identified the just price with the current market price.⁵⁸⁹ A strict theory of the just price can therefore only be found in the writings of the third group, the scholastics.

The scholastics did not try to establish a new science; their aim was rather to give guidance for human conduct⁵⁹⁰ by reconciling economic considerations with Christian ethics⁵⁹¹. Hence, their perspective was intrinsically ethical. They asked a theological question and gave a theological answer to it.⁵⁹² Concerning the concept of justice in the economy, their central interest was the just price. Deviations from the just price had to be avoided for three reasons: firstly, avarice is one of the seven deadly sins, secondly, charging a price other than the just price would be against the eighth⁵⁹³ commandment ‘[y]ou shall not steal’,⁵⁹⁴ and thirdly, the just price was an expression of the general virtue of justice, which dominated the medieval culture in form of the writings of Antiquity, the holy scriptures, and works of art in churches and cathedrals.⁵⁹⁵ When speaking of the just price, the scholastics usually perceived every good as having one true objective value. This true value could be identified by the estimation of the community.⁵⁹⁶ The scholastics were influenced by two legacies: Firstly, there was the classical heritage, in particular the Aristotelian influence. From this emanated a kind of ‘objective’ justice, which is socially oriented. Departures from just states of this kind involve the danger of impairing social cohesion. Secondly, there was the Christian heritage, which implied a second, rather subjective, understanding of justice. Seen from this perspective, justice has to do with an inner state of individual righteousness. Pursuing justice means following God’s commandments.⁵⁹⁷

⁵⁸⁹ Cf. Baldwin, pp. 46-53.

⁵⁹⁰ Cf. Sewall, p. 11.

⁵⁹¹ Cf. Schinzinger, p. 22.

⁵⁹² Cf. Salin, *Politische Ökonomie*, pp. 30-1.

⁵⁹³ Or seventh, according to the counting of the Roman Catholic Church.

⁵⁹⁴ *The Holy Bible*, New Revised Standard Version, Oxford University Press, Oxford, 1995, Ex. 20: 15, and cf. Deut. 5: 19.

⁵⁹⁵ Cf. Baldwin, p. 59.

⁵⁹⁶ Cf. Sewall, p. 12.

⁵⁹⁷ Cf. Baldwin, pp. 59-60, and cf. Salin, *Politische Ökonomie*, p. 31.

Albertus Magnus (1200-1280) with reference to Aristotle distinguished distributive and commutative justice, a differentiation that was followed throughout the whole medieval period.⁵⁹⁸ What was new was his high esteem of labour.⁵⁹⁹ As a consequence, value is the result of need or want on the one hand and the cost of production; that is, labour input and raw materials, on the other hand.⁶⁰⁰ Albert saw a good estimation of this just price in the market price, as long as it is an outcome of voluntary transactions free from fraud.⁶⁰¹ Albertus Magnus approved of price-fixations by the authorities, as long as they aimed at protecting the weaker party in market transactions.⁶⁰²

Thomas Aquinas (1225-1274) demanded that every economic exchange ought to be just. Without justice, the economy would not fulfil its proper function.⁶⁰³ Having said that, Aquinas saw a difference between human and divine law. Whereas human law sets only an ethical minimum, divine law leaves nothing unpunished.⁶⁰⁴ As the economy can only fulfil its function if it is just, so can the price only serve its purpose as a just price.⁶⁰⁵ For Aquinas the requirement that the price be just follows from the golden rule: ‘All things whatsoever you would that men should do to you, do you also to them’⁶⁰⁶.

‘Since no one wishes to acquire a good at a price in excess of its worth, no one should try to sell it for more than it is worth.’⁶⁰⁷ The just price is an inherent property of the object itself, it is the ‘true value’ of the object.⁶⁰⁸ By saying that ‘to sell a thing for more than its worth, or to buy it for less than its worth, is in itself unjust and unlawful’⁶⁰⁹, Aquinas distanced himself from the canonists who would accept a price as the outcome

⁵⁹⁸ Cf. Schinzinger, p. 24.

⁵⁹⁹ Cf. Hecker, p. 45.

⁶⁰⁰ Cf. Baldwin, p. 74.

⁶⁰¹ Cf. Schinzinger, p. 23.

⁶⁰² Cf. *ibid.*, p. 24.

⁶⁰³ Cf. *ibid.*, p. 25.

⁶⁰⁴ Cf. Spiegel, p. 61.

⁶⁰⁵ Cf. Schinzinger, pp. 25-6.

⁶⁰⁶ *The Holy Bible*, Mt. 7: 12.

⁶⁰⁷ Spiegel, p. 61.

⁶⁰⁸ Cf. Sewall, p. 15.

⁶⁰⁹ Thomas Aquinas, *Summa Theologica*, translation Fathers of the English Dominican Province, vol. 3, Benzinger Brothers, New York, 1948, II.II. qu. 77 a. 1. Cf. Baldwin, pp. 62-3.

of free bargaining only restricted by *laesio enormis*.⁶¹⁰ Like Albertus Magnus, Aquinas saw the true value of a thing determined by its demand and the cost of production; that is, the labour input and the cost of raw materials. He would accept the current market price as a good estimation for the just price.⁶¹¹ However, demanding the current market price does not always have to be perfectly virtuous. Aquinas cited a story of Cicero in which a merchant brings wheat to a country that suffers a famine. The merchant knows that more food is on its way to the market and needs to decide whether he can sell his merchandise for the high current market price or whether he has to tell his clients that more wheat will be arriving soon and thereby lowering the market price. According to Aquinas, the merchant does not have to mention that more wheat is on its way, selling his merchandise for the current market price would be just. However, it would be more virtuous of him to inform his exchange partners.⁶¹²

Furthermore, a seller may sell his goods for more than he paid for them, as long as he improved them in some way, for example by changing its place, transforming it in terms of time or as a compensation for taking a risk.⁶¹³ The justness of the market price lies in its objective, social nature, since it is the outcome of many independent estimations of buyers and sellers. Perfect competition of trading partners implies the absence of the exploitation of individual exigency and market power. In contrast, in situations with monopoly power, the social nature of the market price is missing and it cannot count as just.⁶¹⁴ Also in the context of wages, Aquinas postulated an equality of price and what the buyer receives in return. According to him, every class of society deserves a certain income, since Aquinas saw the differentiation of the classes as part of the divine order. The wage ought to reproduce this natural order.⁶¹⁵ To sum up, for Aquinas '*justice is a*

⁶¹⁰ Cf. Baldwin, pp. 69-70.

⁶¹¹ Cf. Schinzinger, pp. 25-6.

⁶¹² Cf. R. de Roover, 'The concept of the just price: Theory and economic policy', in *The Journal of Economic History*, vol. 18, no. 4, 1958, p. 21. Cf. Thomas Aquinas, *Summa Theologica*, II.II. qu. 77 a. 3. The story is taken from Cicero, *De officiis*, translation J. Higginbotham, University of California Press, Berkeley CA, 1967, book III, ch. 12.

⁶¹³ Cf. Sewall, pp. 18-9, and cf. Thomas Aquinas, *Summa Theologica*, II.II. qu. 77 a. 4.

⁶¹⁴ Cf. Baldwin, pp. 79-80, and cf. U. Fehl, 'Die Frage nach dem gerechten Preis', in G. Gutmann & A. Barthel (ed.), *Ethik und Ordnungsfragen der Wirtschaft*, Nomos, Baden-Baden, 1989, pp. 260-1.

⁶¹⁵ Cf. Schinzinger, pp. 26-7.

*habit whereby a man renders to each one his due by a constant and perpetual will*⁶¹⁶ and being a matter of proportionality, justice is person-specific.⁶¹⁷

Albertus Magnus and his student Thomas Aquinas, distinguished the exchange of goods from commutative justice. *Goods exchange* is rather a matter of reciprocity. ‘A city, which was the unit of economic life based on the principle of division of labor, could not exist unless there was proportional exchange of goods. Without this reciprocal compensation, the losses incurred would eventually result in total enslavement of the citizen body, because a slave is one who is not justly rewarded for his work.’⁶¹⁸ This reciprocity requires a proportional equality of value in order to guarantee justice.⁶¹⁹ Again it can be seen, how the scholastics focused their idea of justice on the reproduction of the social system.

In the time after Aquinas, goods were produced more and more often far away from the place of their consumption. Consumers were very often ignorant of the actual cost of production and hence the element of utility became increasingly important for the determination of true value and thus of the just price.⁶²⁰ Anthony of Florence (1389-1459) for example attempted a synthesis of freely floating prices and price-fixation. He distinguished natural value and value in use. Only value in use is relevant for the value in exchange. It has three determining factors: firstly, utility, secondly, scarcity, and thirdly, subjective evaluations of individuals. Since these subjective valuations can differ, an exact estimation of the just price is not possible. Anthony defines a range of acceptable prices: the lowest price is the pious price (*pretium iustum pium*), then there is the price of interest (*pretium discretum*), and the highest is the strict price (*pretium rigidum*).

⁶¹⁶ Thomas Aquinas, *Summa Theologica*, II.II qu. 58 a. 1, emphasis in the original. Cf. Baldwin, pp. 61-2.

⁶¹⁷ Cf. *ibid.*, pp. 61-2.

⁶¹⁸ Thomas Aquinas, *Ethicorum*, documenta catholica omnia, Rome, 1998, Lib. V. Lect. VIII, p. 267. Cf. Alberti Magni, *Opera Omnia*, ed. by A. Borgnet, Vivès, Paris, 1891, Lib. V tract. II caput IX, as cited by Baldwin, p. 63.

⁶¹⁹ Cf. Baldwin, p. 74.

⁶²⁰ Cf. Sewall, pp. 24-5.

Prices are just as long as they float in this range of pious and strict price.⁶²¹ Extra-profits as a result of monopoly power, however, were condemned.⁶²²

Leonhard Lessius (1554-1623) as a representative of the late scholastics condemned usury as a violation of the practice of justice.⁶²³ He adopted the terms of Aristotelian philosophy with one exception. Lessius treated wage hierarchies as part of commutative justice rather than distributive justice. Different wages exist to compensate for different activities.⁶²⁴ According to him, just prices can either be set by the authorities or they are based on valuations of the community.⁶²⁵

5.4 Early Modern Period

For Martin Luther, ‘sin’ is the antonym of ‘justice’.⁶²⁶ He disapproved of usury, since it would be responsible for price increases and famines, and he disapproved of monopolies, since they cause excessive prices. Prices should be set by the authorities, but since he believed this to be unrealistic, he accepted market prices as a second best solution.⁶²⁷

‘Es wäre der beste und sicherste Weg, wenn die weltliche Obrigkeit hierfür vernünftige, redliche Leute einsetzte und sie beauftragte, die verschiedenen Waren mit ihren Kosten zu überschlagen und danach Maßstäbe aufzustellen dafür, wie teuer sie sein sollten, damit der Kaufmann zurechtkommen kann und sein geziemtes Auskommen davon hat, so wie man an einigen Orten Wein, Fisch, Brot und dergleichen [preislich] festgesetzt hat. Aber wir Deutschen haben mehr zu tun. Wir haben zu trinken und zu tanzen, als daß wir uns um eine solche Regierung und Ordnung kümmern könnten. Und weil eine solche Ordnung nicht zu erhoffen ist, ist das der nächstliegende und beste Rat, den Wert einer Ware danach zu bestimmen, wie der allgemeine Markt sie gibt und nimmt oder wie es die Gewohnheit des Landes ist, [sie] zu geben und zu nehmen.’⁶²⁸

⁶²¹ Cf. Schinzinger, p. 28, and cf. Sewall, p. 25, and cf. Hecker, p. 55.

⁶²² Cf. Hecker, pp. 54-5.

⁶²³ Cf. B. Schefold, ‘Leonhard Lessius: Von der praktischen Tugend der Gerechtigkeit zur Wirtschaftstheorie’, in B. Schefold, *Beiträge zur ökonomischen Dogmengeschichte*, ed. by V. Caspari, Wirtschaft und Finanzen, Düsseldorf, 2004, pp. 127-8. In the history of economic thought, in particular in Scholasticism, the ban on usury – that is to say: the injustice of usury – was a much disputed subject. Since this is a very specific problem and would require a whole dissertation on its own, I simply refer to two introductions on the topic: Schinzinger, pp. 15-35, and Spiegel.

⁶²⁴ Cf. Schefold, ‘Leonhard Lessius’, p. 138.

⁶²⁵ Cf. *ibid.*, p. 147. ‘communi hominum aestimatione’.

⁶²⁶ Cf. W. Kerber, C. Westermann & B. Spörlein, p. 40.

⁶²⁷ Cf. Hecker, pp. 59-61.

⁶²⁸ M. Luther, ‘Über Handel und Zinswirtschaft’, in H. Beintker, H. Junghans & H. Kirchner (ed.), *Christ und Gesellschaft*, Evangelische Verlagsanstalt, Berlin, 1982, p. 243, insertion by the editors.

Even though he generally disapproved of the scholastic tradition, in the matter of the just price he did not distance himself very much from it and did not develop an elaborate system of ethics in the economy on his own.⁶²⁹

In the 16th and 17th century, a new class of writers emerged: the empiricists. Whereas the ancient philosophers and the theologians of the Middle Ages mainly argued from a moral point of view and were thus interested in *justification*, this new group of writers was interested in *explanation* of value.⁶³⁰ ‘The problem is no longer what value should be, but what it is.’⁶³¹ Standing in this tradition, Hugo Grotius and Samuel von Puffendorf were the first to perceive value as a phenomenon of nature.⁶³² Grotius saw the ‘most natural Measure of the Value of a Thing i[n] the Want of it’⁶³³. Determinants of value according to von Puffendorf are utility and scarcity.⁶³⁴ He made a distinction between the ‘legal price’ as a price fixed by order of the magistrate and the ‘natural price’, as the result of common judgement and estimation. The legal price is usually perceived to be just. It is fixed at a certain point and admits no latitude. The natural price, however, can vary in a certain range. The lowest degree is the favourable, the middle the reasonable and the highest the rigorous price. Von Puffendorf added that in regulating the natural price, the labour input and other costs of production need to be taken into consideration, otherwise production would be discouraged.⁶³⁵

Cf. Hecker, pp. 60-1. ‘But in order not to leave this question entirely unanswered, the best and safest way would be for the temporal authorities to appoint over this matter wise and honest men who would appraise the cost of all sorts of wares and fix accordingly the outside price at which the merchant would get his due and have an honest living, just as at certain places they fix the price of wine, fish, bread and the like. But we Germans are so busy with drinking and dancing that we cannot tolerate any such regulation. Since, then, we cannot hope for such a law, the next best thing is to hold our wares at the price which they bring in the common market or which is customary in the neighborhood.’ (M. Luther, ‘On trading and usury’, translation C. M. Jacobs, in *Works of Martin Luther*, vol. 4, Castle Press, Philadelphia, 2007, p. 16).

⁶²⁹ Cf. Hecker, p. 135.

⁶³⁰ Cf. Sewall, p. 32.

⁶³¹ Ibid., p. 32.

⁶³² Cf. ibid., p. 43.

⁶³³ H. Grotius, *The rights of war and peace, in three books. Wherein are explained, the law of nature and nations, and the principal points relating to government*, Thomson Gale, London, 1738, original: ‘de jure belli et pacis’, Amsterdam, 1625, p. 301, book II ch. 12 no. 14. Cf. Sewall, p. 38.

⁶³⁴ Cf. S. Puffendorf, *Of the law of nature and nations*, translation B. Kennet, 3rd ed., R. Sare, London, 1717, originally: *De iure naturae et gentium*, Lund, 1672, pp. 222-4.

⁶³⁵ Cf. ibid., pp. 227-8.

Thomas Hobbes (1588-1679) formulated an alternative to the normative approach of the scholastics.⁶³⁶ He attempted to draft an empirical idea of men who mainly follow self-interested motives. Therefore, his theory of justice concentrates on the liberties of the individual rather than concentrating on society as a whole.⁶³⁷ The aim is to create perfectly just institutions that restrain and channel the actions of free and self-interested individuals.⁶³⁸ In the war of all against all, justice is not a problem. Since everyone has the right to do everything, there can be no unjust actions. In this original state every individual is completely independent of all others. Justice can only be relevant in a society of mutually dependent individuals. Also if individuals enter into mutual contracts, breaking these contracts would be unjust. Everything that is not unjust is just and as long as there are no binding contracts, nothing can be unjust. Furthermore, the validity of contracts requires an authority that enforces them. Therefore justice becomes relevant only when firstly, there exists a society, secondly, there are contracts, and thirdly, there is a state to enforce these contracts.⁶³⁹ The justness of a transaction lies in the voluntary agreement of all parties involved, not in certain characteristics of the price. Rather, whatever price the exchange partners voluntarily agree upon, can be characterised as just.⁶⁴⁰

The ancient Greeks and the scholastics used to say that justice requires that no partner in exchange is better or worse off after a transaction. According to Étienne Bonnot de Condillac (1714-1780) this is an illusion, caused by the use of money in transactions. Money makes people believe that they exchange equal value for equal value. Actually, Condillac said, individuals agree on a transaction only, if they expect to realise an advantage. The value of a good and its price must consequently be different.⁶⁴¹

⁶³⁶ Cf. Hecker, p. 32.

⁶³⁷ Cf. *ibid.*, pp. 168-70.

⁶³⁸ Cf. A. Sen, *The idea of justice*, Penguin, London, 2010, pp. 5-6.

⁶³⁹ Cf. T. Hobbes, *Leviathan oder Stoff, Form und Gewalt eines bürgerlichen und kirchlichen Staates*, ed. by I. Fetscher, Luchterhand, Neuwied et al., 1966, pp. 98-134.

⁶⁴⁰ Cf. G. Senft, 'Auf der Suche nach der "Natürlichen Ordnung": Der Gerechtigkeitsgehalt im wirtschaftlichen Leitbild Silvio Gesells', in H. G. Nutzinger (ed.), *Gerechtigkeit in der Wirtschaft: Quadratur des Kreises?*, Metropolis, Marburg, 2006, pp. 57-8.

⁶⁴¹ Cf. Sewall, p. 111.

Later, David Hume (1711-1776) traced the concept of justice back to the scarcity postulate. If we lived in a state of absolute abundance, the problem of justice would not arise:

‘Let us suppose, that nature has bestowed on the human race such profuse abundance of all external conveniencies, that, without any uncertainty in the event, without any care or industry on our part, every individual finds himself fully provided with whatever his most voracious appetites can want, or luxurious imagination wish or desire. . . . It seems evident, that, in such a happy state, every other social virtue would flourish, and receive tenfold encrease; but the cautious, jealous virtue of justice would never once have been dreamed of. For what purpose make a partition of goods, where everyone has already more than enough? Why give rise to property, where there cannot possibly be any injury? Why call this object mine, when, upon the seizing of it by another, I need but stretch out my hand to possess myself of what is equally valuable? Justice, in that case, being totally USELESS, would be an idle ceremonial, and could never possibly have place in the catalogue of virtues. [sic]’⁶⁴²

5.4.1 Mercantilism

In contrast to the Ancient Greeks and the scholastics, mercantilism understood economics as an independent field of inquiry.⁶⁴³ The perspective was no longer a purely ethical one, concentrated on the *justification* of economic actions; mercantilists were rather interested in the *analysis* of aspects of the economic sphere.⁶⁴⁴ A characteristic example for this new development is the work of William Petty (1623-1687). ‘[I]nstead of using only comparative and superlative Words, and intellectual Arguments’, his aim was ‘to express [him]self in Terms of *Number*, *Weight* or *Measure*; to use only Arguments of Sense, and to consider only such Causes, as have visible Foundations in Nature; leaving those that depend upon the mutual Minds, Opinions, Appetites, and Passions of particular Men, to the Consideration of others [sic]’⁶⁴⁵. Petty shifted the attention from ethics to empiricism. Mercantilism in general changed the focus of economic inquiry away from matters of the just price, usury and monopolies to the development of the economy.⁶⁴⁶ The static mindset of the middle ages was substituted by a dynamic one.⁶⁴⁷ Mercantil-

⁶⁴² D. Hume, *An enquiry concerning the principles of morals*, ed. by T. L. Beauchamp, Clarendon Press, Oxford, 1998, first published 1751, p. 83, emphasis in the original.

⁶⁴³ Cf. B. Schefold, ‘Grundzüge und Hauptautoren merkantilistischer Theorie’, in *Zeitschrift für Agrargeschichte und Agrarsoziologie*, vol. 45, no. 2, 1997, p. 165.

⁶⁴⁴ Cf. Salin, *Politische Ökonomie*, p. 43.

⁶⁴⁵ W. Petty, ‘Preface to first essay on political arithmetic’, in C. H. Hull (ed.), *The economic writings of Sir William Petty*, vol. 1, Cambridge University Press, Cambridge UK, 1899, p. 244, emphasis in the original.

⁶⁴⁶ Cf. Schefold, *Leonhard Lessius*, p. 129.

⁶⁴⁷ Cf. W. Lachmann, *Entwicklungspolitik Band 1: Grundlagen*, 2nd ed., Oldenbourg, Munich et al., 2004, p. 67.

ism distanced itself from scholasticism by turning away from the ethical approach and it also distanced itself from liberalism by approving of a strong government.⁶⁴⁸ The purpose of favourable economic policies became to increase the wealth of the prince or ruler.⁶⁴⁹ Since mercantilism identified this wealth with the precious metals, and since these existed in a relatively fixed amount, mercantilism concluded that one nation could only prosper at the expense of another.⁶⁵⁰

5.4.2 Cameralism

Cameralists, mostly public servants, attempted to apply mercantilist thought to the German states.⁶⁵¹ As in mercantilism, the study of the economy became ‘political’ in the sense of being occupied with augmenting the power of the state.⁶⁵² In contrast with liberalism, cameralists were in favour of a strong government as an active mover. According to them markets do not necessarily tend to an equilibrium but require regulation.⁶⁵³ The aim of economic policies was thus an ordering of society that made optimal production possible.⁶⁵⁴ This is particularly important since the power of the state depends on its financial resources.⁶⁵⁵ If tradition stood in the way of such an efficient organisation, it had to be overcome.⁶⁵⁶

One important question concerning justice was the practice of taxation. Since justice ought to prevail in taxation, individuals with a high income were in a position to give more than poor individuals.⁶⁵⁷ The underlying motive, however, was less ethical than

⁶⁴⁸ Cf. Lachmann, *Entwicklungspolitik*, p. 65.

⁶⁴⁹ Cf. W. Lachmann, *Volkswirtschaftslehre I*, Springer, Berlin, 2006, p. 49.

⁶⁵⁰ Cf. L. L. Pasinetti, *Lectures on the theory of production*, Columbia University Press, New York, 1977, p. 2.

⁶⁵¹ Cf. Lachmann, *Volkswirtschaftslehre*, p. 49.

⁶⁵² Cf. T. Simon, *Gute Policy: Ordnungsleitbilder und Zielvorstellungen politischen Handelns in der Frühen Neuzeit*, Klostermann, Frankfurt am Main, 2004, pp. 382-3.

⁶⁵³ Cf. H. Peukert, ‘Justi’s concept of moral economics and the good society’, in J. H. G. von Justi, *The beginnings of political economy*, ed. by J. G. Backhaus, Springer, Boston, 2009, p. 117.

⁶⁵⁴ Cf. Simon, *Gute Policy*, p. 383.

⁶⁵⁵ Cf. *ibid.*, p. 388.

⁶⁵⁶ Cf. *ibid.*, p. 541.

⁶⁵⁷ Cf. *ibid.*, p. 474. E.g.: ‘Wer viel einnimmt, kan viel wieder ausgeben, wer aber wenig einnimmt, dem würde unrecht geschehen, wenn man einen reichen und ihn in ausgaben gleich setzen wolte [sic].’, C. F. Pescherino, ‘Politische Gedanken über die bisher zwar ungebräuchlichen aber doch dem Lande und Fürsten höchstersprieslichen Generalzehenden, worinn derselben Vollkommenheit erwiesen, die

one might at first assume. The guiding principle of cameralistic taxation was not simply to *absorb* wealth from the population but rather to *create* absorbable wealth and in particular not to destroy the basis of production. A certain threshold should not be exceeded in taxation, otherwise it would be harmful to the accumulation of wealth.⁶⁵⁸

In order to promote the accumulation of wealth and to strengthen the basis for wealth creation, Cameralism had three principles of economic policy: firstly, the stimulation of population growth, secondly, augmenting wealth of the individual households, and finally, an efficiency-oriented ordering of the economic and social system.⁶⁵⁹ The focus on growth and development implied a dynamic view of society. Whereas Antiquity had been striving after a ‘good order’, a ‘final state’ of contentment, cameralism did not perceive such a logical end of accumulation, since there can always be *more* of material wealth.⁶⁶⁰

The best known author of cameralism is probably Johann Heinrich Gottlob von Justi (1717-1771). According to him, benevolence, liberty, justice, and equitableness lead to ethically correct behaviour. In the long run, they are even the key to inner worldly success and personal fulfilment.⁶⁶¹ Justi was opposed to the idea of Bernhard Mandeville that private vices ultimately lead to public benefits. Quite on the contrary, Justi stated that ‘private vices are the major enemy for public benefit’⁶⁶². He illustrated this in a

Beschaffenheit der Anlagen und Unzulänglichkeit derjenigen, so bisher gebraucht worden, gezeiget, auch worauf die Glückseligkeit eines Staats beruhe, demonstret wird. Alles mit politischen Reflexionen und historischen Exempeln erläutert’, in W. von Schröder (ed.), *Fürstliche Schatz- und Rentenkammer nebst seinem Tractat vom Goldmachen*, Topos, Vaduz, 1978, first published Leipzig 1752, p. 537. ‘Whoever earns a lot, can spend a lot. He who, however, earns little, would be treated unjustly if one treated him and a rich person alike in terms of tax payments.’ (translation: author).

⁶⁵⁸ Cf. Simon, *Gute Policey*, pp. 398, 474, and B. Schefold, ‘Justis “Grundsätze der Policey-Wissenschaft”: Glückseligkeit und Wirtschaftspolitik’, in B. Schefold, *Beiträge zur ökonomischen Dogmengeschichte*, ed. by V. Caspari, Wirtschaft und Finanzen, Düsseldorf, 2004, p. 253: ‘Der recht-schaffene Cameralist bemühet sich zwar die Einkünfte des Staats zu vermehren; allein auf eine der Wohlfahrt des gemeinen Wesens unnachtheilige Art ohne Bedrückung der Unterthanen [sic].’ J. H. G. von Justi, ‘Abhandlung, von dem so genannten Plusmachen, oder der schädlichen Art, die Einkünfte des Staats zu vermehren’, in *Gesammelte politische und Finanz-Schriften*, vol. 3, Scientia, Aalen, 1970, first published 1764, pp. 410-1. ‘It is true that the righteous cameralist strives towards the augmentation of the state’s revenue, but he does this in a way that is not disadvantageous for the general welfare and without depression of the subjects.’ (translation: author).

⁶⁵⁹ Cf. Simon, *Gute Policey*, p. 456.

⁶⁶⁰ Cf. *ibid.*, p. 540.

⁶⁶¹ Cf. Peukert, ‘Justi’s concept’, p. 119.

⁶⁶² *Ibid.*, p. 122.

story about two fathers and their families. One father is very strict, the other incorporates the virtues of benevolence, liberty, justice and equitableness. At first it seems as if the former with his short-sighted behaviour would be more successful but ultimately the ethically correct approach of the latter leads to success.⁶⁶³

‘O! Daß doch meine Erzählung bei allen Vätern und Obern einigen Eindruck machen möchte! Wenn sie doch einsehen wollten, daß die Grundsätze der Gütigkeit, der Freiheit, der Gerechtigkeit und Billigkeit, die ihren Kindern und Untergebenen die angenehmsten und nützlichsten sind, auch vor sie selbst allemal die ersprießlichsten und heilsamsten sind.’⁶⁶⁴

5.4.3 Physiocracy

Physiocracy was a counter movement to mercantilism. Previously, restrictive trading regulations and the preferential treatment of the manufacturing sector and industry had led to a neglect of agriculture.⁶⁶⁵ The physiocrats demanded a radical change based on three principles: free trade, taxation of agriculture only, and the conviction that neither money, acquisition, manufactory, nor industry can create wealth.⁶⁶⁶

The central figure of physiocracy was François Quesnay (1694-1774). Being trained in the medical profession, he substituted the traditional view of a naturally evolved, God-given order with a world view, based on the assumption of natural laws that can be discovered and investigated in the process of science.⁶⁶⁷ Accordingly, mercantilists saw such laws at work in the context of economics, too. For example they distinguished a ‘natural price’ from the ‘current price’; the natural price being equal to the cost of production. For products of the sterile class, this means production costs, for agricultural products in addition a surplus value.

⁶⁶³ Cf. J. H. G. von Justi, ‘Die gütigen und strengen Väter’, in *Fabeln und Erzählungen von Thieren und sehr alten längst verrosteten zeiten, bey deren Lesung man ganz sanft und süß wird einschlafen können*, Cologne, 1759.

⁶⁶⁴ Justi, ‘Die gütigen und strengen Väter’, p. 24. ‘O! I wished my tale would have an impact on all fathers and powerful! I wish they would come to see that the principles of benevolence, liberty, justice, and equitableness, which are the most agreeable and useful principles for their children and subordinates, are also the most fruitful and beneficial principles for themselves.’ (translation: author).

⁶⁶⁵ Cf. Lachmann, *Volkswirtschaftslehre*, p. 50.

⁶⁶⁶ Cf. G. A. Will, *Versuch über die Physiokratie, deren Geschichte, Literatur, Inhalt und Wert*, Raspe, Nuremberg, 1782, p. xi.

⁶⁶⁷ Cf. Salin, *Politische Ökonomie*, p. 61.

Wages, the prices for labour, are at a subsistence level, since workers compete on the market. Moreover, labour is unproductive and value is thus added by land, not by labour.⁶⁶⁸ One can observe a significant shift from the discussion of ‘just prices’ in scholasticism to ‘natural prices’ in physiocracy.

The physiocratic principles of justice refer to the the general principles of physiocracy. Georg Andreas Will summarised this:

‘Und dieser Hauptgrundsätze, die eine absolute und ewige Gerechtigkeit machen, sind nur drei: I. Eine ganz uneingeschränkte Freiheit des Bürgers, alle seine Fähigkeiten, Kräfte und Güter nach seinem Gefallen zu gebrauchen, damit zu thun, zu handeln, zu kaufen, zu verkaufen, was, wenn, und wohin ein jeder will; II. Eine Unverletzlichkeit der zur Fortsetzung der Benutzung der Grundstücke erforderlichen Auslagen; III. Eine absolute Einheit der Auslage auf den reinen Ertrag der Grundstücke.’⁶⁶⁹

5.5 Modern Era

What authors of the Early Modern Period began, namely the formalisation of economic theory and a shift from a normative approach to the subject matter to an attempt of a positivistic approach, was more fully realised in the Modern Era. Economics was perceived as a distinct field of inquiry,⁶⁷⁰ legitimate for its own sake, not just serving as a means to a distinct political end, as strengthening the power of the government.

5.5.1 Classical Theory

This chapter presents Adam Smith’s approach to justice. His works are often seen as a turning point in the thought about justice in economics. Therefore he stands exemplarily for the classical theory in this chapter. Other classical authors will be discussed in different contexts, John Stuart Mill in the chapter ‘Utilitarianism and the Marginal School’ and Karl Marx in ‘Socialism’.

⁶⁶⁸ Cf. K.-H. Schmidt, ‘Merkantilismus, Kameralismus, Physiokratie’, in O. Issing (ed.), *Geschichte der Nationalökonomie*, 4th ed., Vahlen, Munich, 2002, p. 58.

⁶⁶⁹ Will, pp. 51-2. ‘Merely three principles constitute absolute and eternal justice: I. An unrestricted liberty of the citizen to use all his skills, powers, and goods, in order to do with it, trade, buy, or sell, whatever, whenever and wherever he desires. II. An inviolability of the outlays that are necessary for the continuation of the use of land. III. An absolute unity of the expenses for the revenue of land.’ (translation: author).

⁶⁷⁰ Cf. e.g. H. G. Nutzinger & C. Hecker, ‘Gerechtigkeit in der Ökonomie: Ein unlösbarer Widerspruch?’, in *Leviathan*, vol. 36, no. 4, 2008, p. 549.

Adam Smith is particularly known for his assertion that the individual pursuit of self-interest tends to be beneficial to the whole of society.

‘It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.’⁶⁷¹

However, in contrast to many modern economists, Smith did not see self-interest as the exclusive motivation for human behaviour. There are aspects of the human nature ‘which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it.’⁶⁷² Self-interest, on the other hand, is specifically the motivation underlying exchange.⁶⁷³ The starting point of Smith’s considerations in this regard is the concept of ‘sympathy’.⁶⁷⁴ An individual perceives somebody else’s experiences through the light of his own: ‘I judge of your sight by my sight, of your ear by my ear, of your reason by my reason, of your resentment by my resentment, of your love by my love.’⁶⁷⁵ Such sympathy applies to experiences of the body⁶⁷⁶ as well as to those of the ‘imagination’: ‘A disappointment in love, or ambition, will . . . call forth more sympathy than the greatest bodily evil.’⁶⁷⁷ Smith is opposed to the idea that sympathy is just another form of self-interest ‘in disguise’.⁶⁷⁸ He puts forward several examples. One is that of a soldier at war: The advantage he would have from a marginal increase of his sovereign’s territory would be much less than the disadvantage he has from putting his own life in danger. The most logical thing

⁶⁷¹ Smith, *An inquiry*, p. 15.

⁶⁷² Smith, *The theory*, p. 13.

⁶⁷³ Cf. Sen, *The idea of justice*, pp. 186-7.

⁶⁷⁴ Cf. Hecker, p. 173.

⁶⁷⁵ Smith, *The theory*, pp. 24-5.

⁶⁷⁶ ‘If, as has already been observed, I see a stroke aimed, and just ready to fall upon the leg, or arm, of another person, I naturally shrink and draw back my own leg, or my own arm: and when it does fall, I feel it in some measure, and am hurt by it as well as the sufferer. My hurt, however, is, no doubt, excessively slight, and, upon that account, if he makes any violent out-cry, as I cannot go along with him, I never fail to despise him. And this is the case of all the passions which take their origin from the body: they excite either no sympathy at all, or such a degree of it, as is altogether disproportionate to the violence of what is felt by the sufferer.’ Smith, *The theory*, p. 36.

⁶⁷⁷ *Ibid.*, p. 37.

⁶⁷⁸ Cf. Trapp, p. 43.

to do according to his self-interest would be to desert at first chance. Nevertheless, he chooses to fight.⁶⁷⁹

Justice is necessary for the functioning of the economic and legal system and is a means to fostering economic prosperity.⁶⁸⁰ Without justice a society is in danger of falling apart: ‘Justice . . . is the main pillar that upholds the whole edifice. If it is removed, the great, the immense fabric of human society . . . must in a moment crumble into atoms.’⁶⁸¹

Whereas Aristotle and the scholastics thought that a just transaction involves neither gain nor loss of both exchange partners, Smith – like Hume – was convinced that transactions take place only if they promise a mutual advantage for all parties involved.⁶⁸² On the other hand he was opposed to the idea that voluntariness is a sufficient condition for the justness of a transaction.⁶⁸³ Smith introduced the concept of an ‘impartial spectator’⁶⁸⁴ as a supra-individual judge over the justness of a transaction.⁶⁸⁵

Besides preventing foreign invasions and the supply of public goods, the establishment of an ‘administration of justice’ is part of the duties of the sovereign.⁶⁸⁶ It is even in the own interest of the government to guarantee a just order, since it is a precondition for a flourishing economy.⁶⁸⁷ Furthermore, the government should not do anything to feed the natural tendency of trades to form cartels⁶⁸⁸ and it should take measures for equal opportunities of all members of society.⁶⁸⁹

⁶⁷⁹ Cf. Smith, *The theory*, pp. 223-4, and cf. Trapp, pp. 45-6.

⁶⁸⁰ Cf. Nutzinger, pp. 388-9.

⁶⁸¹ Smith, *The theory*, p. 104. Cf. Mathis, p. 91.

⁶⁸² Cf. Salin, *Politische Ökonomie*, p. 73.

⁶⁸³ Cf. A. Sen, ‘Introduction’, in A. Smith, *The theory of moral sentiments*, ed. by R. P. Hanley, Penguin, London, 2009, first published 1759, p. xvii.

⁶⁸⁴ Cf. Smith, *The theory*, p. 31.

⁶⁸⁵ Cf. Hecker, p. 174.

⁶⁸⁶ Cf. Smith, *An inquiry*, p. 745.

⁶⁸⁷ Cf. J. W. Cairns, ‘Adam Smith and the role of the courts in securing justice and liberty’, in R. P. Malloy (ed.), *Adam Smith and the philosophy of law and economics*, Springer, Dordrecht et al., 1994, p. 31, and cf. Smith, *An inquiry*, p. 985.

⁶⁸⁸ Cf. Smith, *An inquiry*, p. 148.

⁶⁸⁹ Cf. Senft, p. 60.

Sometimes, Adam Smith is seen as the end of inquiry into the concept of justice in economics⁶⁹⁰ and although we have shown that this is not exactly true, there has indeed been a certain shift of interest. Instead of conflict-laden static questions as the justness of a distribution of a given income, Smith and the classical economists concentrated on dynamic aspects of economics such as the creation and the increase of wealth.⁶⁹¹ If issues of justice were addressed, then they were more likely to be concerned with justice in exchange rather than distributive justice, since justice in exchange is more exactly definable.⁶⁹² Generally, Smith's approach to justice can be said to be 'comparative'.⁶⁹³ Perfect and absolute justice is an unattainable ideal, the justness of a situation can be measured by its proximity or distance from this ideal.⁶⁹⁴

Smith distinguished market- and natural prices. The market price is the price a 'commodity is commonly sold' for. 'It may be above, or below, or exactly the same with its natural price'⁶⁹⁵ which covers all costs of production. If a commodity is sold for the natural price, then it is 'sold precisely for what it is worth, or for what it really costs the person who brings it to the market'⁶⁹⁶. Market prices gravitate around the natural price⁶⁹⁷ in accordance with short-term changes of supply and demand.⁶⁹⁸ One can interpret Smith's opposition to cartels, guilds and combined measures of employers to lower wages as an ethical postulate towards the equality of market- and natural prices.⁶⁹⁹ Indeed the notion of a natural price implies the idea of a 'right price'. Nevertheless, this does not lead Smith to develop a theory of just prices as in scholasticism; it rather serves as an argument for more competition.⁷⁰⁰

⁶⁹⁰ Cf. Nutzinger, p. 384.

⁶⁹¹ Cf. Nutzinger & Hecker, p. 555.

⁶⁹² Cf. Nutzinger, pp. 387-8.

⁶⁹³ Cf. Sen, 'Introduction', pp. xvi-xvii.

⁶⁹⁴ Cf. Smith, *The theory*, p. 33.

⁶⁹⁵ Smith, *An inquiry*, p. 63.

⁶⁹⁶ *Ibid.*, p. 62.

⁶⁹⁷ Cf. *ibid.*, p. 65.

⁶⁹⁸ Cf. Hecker, p. 175, or cf. B. Schefold & K. Carstensen, 'Die klassische politische Ökonomie', in O. Issing (ed.), *Geschichte der Nationalökonomie*, Vahlen, Munich, 2002, pp. 72-3.

⁶⁹⁹ Cf. Hecker, p. 175.

⁷⁰⁰ Cf. *ibid.*, p. 175.

In 'An Enquiry into the Nature and Causes of the Wealth of Nations', Smith developed four maxims of taxation: equality, certainty, convenience of payment, and economy in collection.⁷⁰¹ He also mentioned that if public goods benefit only particular groups rather than the whole of society, it would be unjust if the general public had to pay for it.⁷⁰² Often, Smith argues in favour of the poor. If, for example tolls upon carriages are in proportion to their weight, then the consumers of heavy, bulky commodities pay relatively more than the consumers of light luxury goods. This would be fine if tolls were levied exclusively for the purpose of maintaining the roads. If, however, the revenues from the tolls finance other expenses of the state too, then those who are more able to contribute; that is, the rich, ought to pay more. It is reasonable to assume that poor households spend most of their income on heavy goods rather than light luxury goods.⁷⁰³ Also taxes on the number of windows are likely to be a higher burden for poor households than for rich ones, since a house of ten pounds rent in the country, may have more windows than an apartment or house of five hundred pounds rent in London.⁷⁰⁴ Taxes that are not levied in proportion to the ability to contribute are against Smith's first principle of taxation.⁷⁰⁵

Besides the subject of taxation, Smith criticises the imbalance of power between employers and workers: 'We have no acts of parliament against combining to lower the price of work; but many against combining to raise it.'⁷⁰⁶ Smith's taking side with the poor becomes particularly obvious when he states: 'When the regulation, therefore, is in favour of the workmen, it is always just and equitable; but it is sometimes otherwise when in favour of the masters.'⁷⁰⁷

Far from assuming self-interested motivations in all areas of human behaviour, Smith repeatedly emphasises the importance of justice. In fact, the perfection of human nature

⁷⁰¹ Cf. Smith, *An inquiry*, pp. 888-9.

⁷⁰² Cf. *ibid.*, p. 877.

⁷⁰³ Cf. *ibid.*, p. 785.

⁷⁰⁴ Cf. *ibid.*, p. 911.

⁷⁰⁵ Cf. *ibid.*, pp. 888, 911.

⁷⁰⁶ *Ibid.*, pp. 75-6.

⁷⁰⁷ *Ibid.*, p. 164.

is to ‘feel much for others and little for ourselves . . . to restrain our selfish[ness], and to indulge our benevolent affections’⁷⁰⁸.

5.5.2 Utilitarianism and the Marginal School

‘[I]t is the greatest happiness of the greatest number that is the measure of right and wrong . . .’⁷⁰⁹, is the basic principle of utilitarianism. In contrast to Kantian ethics of duties and convictions, utilitarian ethics are ethics of result. Actions can only be judged as good or bad by their consequences,⁷¹⁰ ‘there are no good or bad actions per se’⁷¹¹. Moreover, social welfare is the sum total of all individual welfares. Therefore, an utilitarian social welfare function of the Benthamite type could be written as:⁷¹²

$$SW = U_1 + U_2 + \dots + U_n \rightarrow \max! \quad (5.1)$$

$$SW = \sum_{i=1}^n U_i \rightarrow \max! \quad (5.2)$$

One can see that every individual contributes to overall utility with the same weight. One unit of utility of household 1 increases overall utility by the same amount as one unit of utility of household 2. Because of that utilitarianism is indifferent about distribution⁷¹³ and even about individual basic- and human rights⁷¹⁴. If pursued consistently, utilitarianism is even compatible with redistribution from the poor to the rich if that should increase overall utility.⁷¹⁵

John Stuart Mill (1806-1873), who is often referred to as a classical economist as well as a utilitarian, connected justice to the advancement of social well-being⁷¹⁶. Thus, he had a utilitarian idea of justice.⁷¹⁷

⁷⁰⁸ Smith, *The theory*, p. 31.

⁷⁰⁹ Bentham, *A Fragment on Government*, p. ii.

⁷¹⁰ Cf. Mathis, pp. 103-4.

⁷¹¹ Ibid., p. 104.

⁷¹² Cf. H.-G. Petersen, *Ökonomik, Ethik und Demokratie*, Nomos, Baden-Baden, 1993, p. 170.

⁷¹³ Cf. Höffe, *Gerechtigkeit*, p. 29.

⁷¹⁴ Cf. ibid., p. 38.

⁷¹⁵ Cf. Petersen, p. 170.

⁷¹⁶ Cf. J. S. Mill, *Utilitarianism*, Elecbook, London, 2001, first published 1863, p. 86. Cf. Hecker, p. 199.

In the context of production, Mill saw actual laws of nature at work, laws that cannot be altered by men. The distribution of goods, however, is a matter of justice and morality. According to Mill, distributive justice means ‘redressing the inequalities and wrongs of nature.’⁷¹⁸

In his theory of prices, Mill departed from a strict labour theory of value. The output of production does not come about by the input of labour alone, also an additional input of capital goods is necessary. Capital goods in turn, are a result of labour in earlier periods and the capital owner can rightfully claim the product of the capital he owns.⁷¹⁹ The input of land is treated differently. Land has not been created by men. Ideally it belongs to the whole of mankind. Private ownership of land can only be just, if it increases overall utility, if it does not, Mill called it unjust.⁷²⁰

Neoclassical economics can be understood as an application of some form of utilitarianism.⁷²¹ Marginal values; that is, marginal utility or marginal productivity, play a decisive role in this context. The demand for goods is determined by marginal utility, factor remuneration by marginal productivity. Prices on markets based on the division of labour can be interpreted as just, since every factor of production receives its contribution to the output as remuneration.⁷²² Hence, the answer of neoclassical economics to the problem of distributive justice is the theory of marginal productivity.⁷²³

⁷¹⁷ Cf. M. S. Abländer & H. G. Nutzinger, ‘John Stuart Mill’, in H. D. Kurz (ed.), *Klassiker des ökonomischen Denkens: Band 1 Von Adam Smith bis Alfred Marshall*, C. H. Beck, Munich, 2008, p. 183, and cf. Hecker, p. 199.

⁷¹⁸ J. S. Mill, *Principles of political economy: with some of their applications to social philosophy*, vol. 2, J. W. Parker, London, 1848, p. 350.

⁷¹⁹ Cf. *ibid.*, vol. 1, pp. 255-7.

⁷²⁰ Cf. *ibid.*, pp. 268-76.

⁷²¹ Cf. e.g. Posner, p. 49.

⁷²² Cf. e.g. H. H. Gossen, *The laws of human relations: and the rules of human action derived therefrom*, translation R. C. Blitz, MIT Press, Cambridge MA, 1983, originally published in German 1854, p. 105: ‘not only is a maximum of value created in the end but also each individual receives from this total exactly that part for which he can make a fair claim.’ H. H. Gossen, *Entwicklung der Gesetze des menschlichen Verkehrs, und der daraus fließenden Regeln für menschliches Handeln*, Wirtschaft und Finanzen, Frankfurt am Main, 1987, facsimile of first ed. Braunschweig, 1854, p. 90: ‘Und nicht bloß, daß durch Erfüllung jener Bedingungen in Summa ein Größtes von Werth geschaffen wird, jeder Einzelne erhält dann genau den Antheil von dieser Summe, auf welchen er billiger Weise Anspruch machen kann. [sic]’.

⁷²³ Cf. Hagel, p. 22.

Neoclassical authors are no longer concerned with ‘natural’ or ‘just’ prices, only with ‘market’ prices, as a result of supply and demand. Instead of a labour theory of value, the new theory refers to marginal utility.⁷²⁴ Neoclassical theory focuses on given resources, rather than dynamic processes. Its starting point, therefore, is scarcity.⁷²⁵ The function of prices is no longer perceived to be the reproduction of the economic system but rather the equalisation of supply and demand. Prices do no longer need to be ‘just’, they need to be ‘efficient’.⁷²⁶

The marginal school reinterprets utilitarianism in an important way: The assumption of scarcity in combination with the hypothesis of decreasing marginal utility leads to a theoretical reduction of all human behaviour to a rational pursuit of utility maximisation.⁷²⁷

Léon Walras (1834-1910), as one of the main figures of early neoclassical theory, distinguished three branches of economics: ‘Science’ as pure theory, ‘Art’ as applied theory and ‘Ethics’ or social economics.⁷²⁸ Thus, he acknowledged the problem of justice as a legitimate field of inquiry in economics, but as pure mechanics precedes applied mechanics in physics, pure economic theory must precede applications of ethical considerations. He himself was only concerned with matters of pure economic theory.⁷²⁹ Besides, as ‘justice consists in rendering to each that which is properly his . . . any science has for its object to render to each what is properly his, if, therefore any science espouses justice as its guiding principle, surely it must be the science of the distribution of

⁷²⁴ Cf. Blaug, *Systematische Theoriegeschichte*, p. 11.

⁷²⁵ Cf. Screpanti & Zamagni, p. 147.

⁷²⁶ Cf. Fehl, p. 264.

⁷²⁷ Cf. Screpanti & Zamagni, p. 148.

⁷²⁸ Cf. L. Walras, *Elements of pure economics or the theory of social wealth*, translation W. Jaffé, A. M. Kelley, New Jersey, 1977, first published 1874, p. 63.

⁷²⁹ Cf. *ibid.*, p. 71. Carl Menger (1840-1921) even goes one step further than Walras. According to him, the ethical branch of economics goes wrong in assuming that the dignity of a science lies in its subject matter rather than the significance of its results. Therefore, Menger sees a misconception of the nature of economics in its ethical branch. Cf. C. Menger, ‘Über die sogenannte ethische Richtung der Politischen Ökonomie’, in F. A. von Hayek (ed.), *Carl Menger – Gesammelte Werke*, 2nd ed., Mohr Siebeck, Tübingen, 1969, p. 291.

social wealth, or, as we shall designate it, *social economics*.⁷³⁰ The concept of justice has been banned from pure (mainstream) economic theory.

5.5.3 Historical Schools

Representing the many authors of diverse historical schools, this chapter discusses only the contributions of Gustav Schmoller (1838-1917) to the issue of justice in economics. He regretted that many of his contemporary economists were not interested in the question of justice. Schmoller found this particularly misfortunate and surprising since people of all times have posed the question of justice and even the founders of economics postulated reforms aiming at justice.⁷³¹ His own work, in contrast, focused on the realisation of justice rather than efficiency.⁷³²

‘The Just *per se*, anything absolutely just, is found in reality as little and as seldom as anything absolutely good. The Just is always an ideal conception, to which reality may approach, but which it will never attain. [sic]’⁷³³ Nevertheless, justice serves as a corrective for historically evolved institutions and therefore as a guideline for social reforms.⁷³⁴ Schmoller compared the formation of an idea of justice with the formation of prices on the market. The absolute values of supply and demand do not perpetually determine new prices, but already prevailing prices are adapted to changes in supply and demand. Like this, there is a process of continuing refinement of the sum total of traditional ideas of justice. Actual ideas of justice have historically evolved. It follows that there is no exact idea or definition of justice that is equally valid for all cultures and all periods of history.⁷³⁵

⁷³⁰ Walras, *Elements*, p. 79, emphasis in the original.

⁷³¹ Cf. Schmoller, ‘The idea of justice’, p. 698.

⁷³² Cf. N. Goldschmidt, ‘Gustav Schmoller’, in H. D. Kurz (ed.), *Klassiker des ökonomischen Denkens: Band I Von Adam Smith bis Alfred Marshall*, C. H. Beck, Munich, 2008, p. 294.

⁷³³ Schmoller, ‘The idea of justice’, p. 700.

⁷³⁴ Cf. H. H. Nau, ‘Politisches Ethos und sozialökonomisches Telos: Gustav Schmollers Konzept einer historisch-ethischen Nationalökonomie als Kulturwissenschaft’, in G. Schmoller, *Historisch-ethische Nationalökonomie als Kulturwissenschaft*, ed. by H. H. Nau, Metropolis, Marburg, 1998, pp. 23-4.

⁷³⁵ Cf. Schmoller, ‘The idea of justice’, p. 711. It must be noted that he did not advocate an equal distribution but a significant improvement of the economic situation of the lower classes. Cf. H. Schellschmidt, *Ökonomische Institutionenanalyse und Sozialpolitik: Gustav Schmoller und*

Schmoller was not convinced by the liberal, utilitarian ideas about justice. Whereas strict utilitarianism is only interested in the sum of social utility and not in the well-being of single individuals, Schmoller stated that

‘wie für die Gesundheit des ganzen Organismus die Gesundheit jedes einzelnen Gliedes nothwendig ist, . . . so ist es auch mit dem Organismus der menschlichen Zwecke. Keiner steht für sich allein, sondern ist mitbedingt durch die anderen und wird selbst am Besten gedeihen, wenn er das richtige Verhältnis zu den anderen Zwecken einnimmt. Ist das ganze Kulturleben von einem Zwecke zu sehr beherrscht oder will ein Glied des Organismus, eine Klasse der Gesellschaft unrichtig oder ungesund sich ausbilden, so entstehen die gesellschaftlichen Krankheiten und mit ihr die socialen Gegentendenzen. [sic]’⁷³⁶

The well-being of all members of society is interdependent. Justice cannot be advanced by an increased utility of one individual at the expense of another even if overall utility should be greater than before. In the context of justice in exchanges, Schmoller accepted the liberal idea that voluntarily agreed contracts can be called just. However, he demanded furthermore the formation of just institutions.⁷³⁷ It becomes evident at this point that Schmoller was particularly interested in distributive justice.⁷³⁸ In this regard one has to differentiate between causes for an unequal distribution that depend on human actions and those that do not. Whereas the distribution is often explained by supply and demand as forces of nature, Schmoller interpreted supply and demand as the outcome of deliberate human actions. An unequal distribution on the level of individuals can be ascribed to chance; the distribution of income between different classes, however, is determined by the institutional framework.⁷³⁹ Institutions in turn are culture specific, can be changed and do change over time.⁷⁴⁰ In this context, Schmoller criticised the scholastic authors. He said they tried to legally enforce what only a higher development

John R. Commons als Vertreter einer sozialreformerisch ausgerichteten Institutionenökonomie, Metropolis, Marburg, 1997, p. 137.

⁷³⁶ G. Schmoller, ‘Die Arbeiterfrage I’, in *Preußische Jahrbücher*, vol. 14, 1864, p. 417. ‘as the healthiness of every limb of the body is necessary for the health of the entire organism, . . . so it is with the organism of human purposes. No one stands alone, but is presupposed by the others and will flourish by assuming the right relation to the others. If all aspects of cultural life are dominated by a single purpose or if a single limb of the organism or a class of society respectively, develop themselves in an untrue and unhealthy way, then societal diseases will emerge and with them social counter tendencies’ (translation: author).

⁷³⁷ Cf. Schmoller, ‘The idea of justice’, pp. 730-1.

⁷³⁸ Cf. *ibid.*, p. 701.

⁷³⁹ Cf. *ibid.*, pp. 716-7.

⁷⁴⁰ Cf. Schellschmidt, pp. 125-9.

of custom and civilisation could bring about.⁷⁴¹ Schmoller himself was optimistic that such a development would occur and society's institutions would become more and more just over time.⁷⁴²

The teacher of John R. Commons (1862-1945), Richard T. Ely, got to know the German Historical School, when studying in Heidelberg.⁷⁴³ In this sense, Commons stood in the tradition of the Historical School, although he himself had been one of the outstanding representatives of American Institutionalism, which avoided establishing a dualism of ethics and economics.⁷⁴⁴ Institutions are not merely functional, they do not only exist to deal with scarcity in the most efficient way, but they have been intentionally created. The members of society are essentially free to form whatever institutions they want. Institutional reform does not necessarily aim at abstract ideas as efficiency or justice (cf. Schmoller), but only concrete action can reveal the interests and normative conceptions of the members of society. Commons called this 'will-in-action'. Again, individuals are essentially free to create the institutions they desire but they do not necessarily aim at justice or efficiency.⁷⁴⁵

Commons, like Hume, sees the origin of both justice and economics in the fact of scarcity. Whereas '[e]conomics is the proportioning of factors, . . . ethics is the proportioning of *human* factors in order to obtain the largest desired result from all.'⁷⁴⁶ If one accepts this, then justice is merely a specific form of efficiency.

⁷⁴¹ Cf. Schmoller, *Über einige Grundfragen*, p. 98.

⁷⁴² Cf. Schmoller, 'The idea of justice', pp. 733-4.

⁷⁴³ Cf. J. R. Wible, *Economics, Christianity, and creative evolution: Peirce, Newcomb, and Ely and the issues surrounding the creation of the American economic association in the 1880s*, Durham, 2009, retrieved 23 February 2012, <<http://www.cspeirce.com/menu/library/aboutcsp/wible/createvol.pdf>>, p. 22.

⁷⁴⁴ Cf. J. R. Commons, *Institutional economics: Its place in political economy*, Macmillan, New York, 1934, p. 339.

⁷⁴⁵ Cf. Schellschmidt, pp. 339-49.

⁷⁴⁶ J. R. Commons, *Legal foundations of capitalism*, Macmillan, New York, 1924, p. 361, emphasis in the original.

5.5.4 Socialism

According to Karl Marx (1881-1883), concepts of justice are always specific to the economic system and its method of production.⁷⁴⁷ Seen from the inside, an economic system is never unjust, but its ideals of justice might be based on mistaken perceptions of the system itself.⁷⁴⁸

With this in mind, Marx presented an external and an internal critique of capitalism. Firstly the external critique: As Hume, Marx saw the origin for the problem of justice in scarcity. Communism, however, would bring about such an improvement of the system of production that scarcity and therefore justice would not play an important role in communism.⁷⁴⁹ Even decision making about what and how to produce would no longer be subject to considerations of justice. The most efficient way of satisfying needs would be scientifically chosen, without the need for opportunities to democratically participate in the decision making process.⁷⁵⁰

Marx's internal critique focused on why capitalism, seen from the inside of the system itself, appears to be just, even though it is not. Socialism, based on a strict labour theory of value, formulated the right to the full product of labour. Capitalistic market prices that grant part of the full product to each of the factors of production – labour, land and capital – must therefore be unjust.⁷⁵¹ Furthermore, the capitalistic labour contract is unjust. Liberalism would ascribe justice to such a contract as being a voluntary agreement of two equal parties. According to Marx this is a deception. The worker is 'free' in a twofold sense: He is free from his feudal obligations but at the same time he is also 'free' of any means of production and is therefore compelled to sell himself; that is, his

⁷⁴⁷ Cf. Senft, p. 65.

⁷⁴⁸ Cf. A. Buchanan, *Marx and justice: The radical critique of liberalism*, Rowman & Allanheld, New Jersey, 1982, p. 54.

⁷⁴⁹ Cf. *ibid.*, p. 57.

⁷⁵⁰ Note the surprising similarity to neoclassical economics: The homo oeconomicus as an efficiency-driven machine, without room for actual free (i.e. not determined by the circumstances) decision making.

⁷⁵¹ Cf. Fehl, p. 264.

labour power. The labour contract appears to be a free agreement, in fact it is not free at all.⁷⁵²

In addition to the question of the just price, Marx discussed whether it would be possible to speak of a just rate of interest. In his ‘Capital’ Marx examined the statement that the rate of interest would be a matter of natural justice as being a part of profit. Orthodox economics argued as follows: If A lends money to B and B makes a profit with this money, then B has to pay a part of his profits to A as remuneration for lending the money. Both parties agree to this contract since it is mutually beneficial. Marx criticised the notion of ‘natural justice’ in this context. Such an agreement can only be just in terms of the inner logic of the economic (i.e. capitalistic) system, not in a ‘natural’ sense.⁷⁵³ Marx agrees with the other classical economists that natural prices are equal to the cost of production in the long run.⁷⁵⁴ Consequently, one could interpret the natural prices as being just. However, there is no ‘natural’ rate of interest. The actual rate of interest is an outcome of competition.⁷⁵⁵ One can conclude that since there are no natural rates of interest, there cannot be a ‘just’ rate of interest. This, however, is not explicit in Marx’ works.

5.6 Contemporary Approaches

Contemporary approaches to justice in economics are diverse and a meaningful structuring of the individual concepts is difficult. This chapter confines itself to presenting some authors from German ordoliberalism, the ‘Theory of Justice’, by John Rawls, Amartya Sen’s work on the subject and some contributions from economic ethics.

⁷⁵² Cf. K. Marx, *Das Kapital: Kritik der politischen Ökonomie*, vol. 1: *Der Produktionsprozeß des Kapitals*, Europäische Verlagsanstalt, Frankfurt am Main, 1968, first published 1894, pp. 286-7.

⁷⁵³ Cf. K. Marx, *Das Kapital: Kritik der politischen Ökonomie*, vol. 3: *Der Gesamtprozeß der kapitalistischen Produktion*, Europäische Verlagsanstalt, Frankfurt am Main, 1968, first published 1894, pp. 350-2.

⁷⁵⁴ Cf. *ibid.*, p. 368.

⁷⁵⁵ Cf. *ibid.*, p. 369.

5.6.1 Ordoliberalism

Like most ordoliberal authors, Walter Eucken (1891-1950) did not formulate a systematic concept of justice. He referred loosely to Aristotle and concentrated primarily on general justice; that is, ensuring the individual's freedom to self dependent action.⁷⁵⁶ Only competitive market transactions fulfil the requirements of justice in exchange.⁷⁵⁷ Eucken mentioned several examples of infringements of justice in exchange: expropriating savers by depreciation of money, excluding individuals from the participation on markets by market entry- or exit-barriers, abuse of the freedom of contract or shifting risk to other market parties by limitations of liability.⁷⁵⁸ With regard to distributive justice, Eucken gave priority to the distribution according to the market forces. This should result in a distribution in accordance with relative scarcity. If the distribution of the market, however, is based on market power, the government should intervene and redistribute income.⁷⁵⁹

Eucken used three terms relatively interchangeably: social justice, institutional justice, and formal justice. All three aim at a functioning order of the economy, or of the society respectively. Economic freedom of the individual agents should be ensured by creating an order based on competition and liability.⁷⁶⁰

Wilhelm Röpke (1899-1966) frequently used the term *social justice* as well. He meant by this a certain kind of social equality: firstly, equal opportunities; that is, commutative justice, and secondly, the postulate that unequal activities or achievements should be remunerated differently; that is, distributive justice.⁷⁶¹ Regarding the problem of the just price, wage or interest rate, Röpke identified them with the respective market price un-

⁷⁵⁶ Cf. Hecker, pp. 212-4.

⁷⁵⁷ Cf. H. Gröner, 'Gerechtigkeitsvorstellungen bei W. Eucken und K. P. Hensel', in G. Gutmann (ed.), *Ethik und Ordnungsfragen der Wirtschaft*, Baden-Baden, 1989, p. 318.

⁷⁵⁸ Cf. W. Eucken, *Grundsätze der Wirtschaftspolitik*, ed. by E. Eucken & K. P. Hensel, Francke et al., Bern, 1952, pp. 315-6.

⁷⁵⁹ Cf. Hecker, p. 214, and cf. Gröner, p. 319.

⁷⁶⁰ Cf. Eucken, *Grundsätze der Wirtschaftspolitik*, p. 317.

⁷⁶¹ Cf. W. Röpke, *Die Gesellschaftskrisis der Gegenwart*, 5th ed., Rentsch, Zürich, 1948, pp. 363-4.

der competition and free market entry and exit. He considered other ways to determine the just price as arbitrary and subjective.⁷⁶²

Alfred Müller-Armack (1901-1978) remains to be mentioned. He too emphasised the importance of justice for society: ‘Zwei großen Zielen fühlen wir uns verpflichtet, *der Freiheit und der sozialen Gerechtigkeit*’⁷⁶³. In a competitive market economy justice cannot mean rendering to each the same, but it must mean rendering to each his rightful due.⁷⁶⁴

In summary, ordoliberalism tried to include justice and ethical aspects into the economic order. This, however, meant separating considerations of justice from the economic process itself.⁷⁶⁵

Friedrich August von Hayek (1899-1992) was rather an ‘evolutionary liberal’ than an ordoliberal.⁷⁶⁶ Nevertheless I present his liberal approach to justice at this point of this chapter, slightly distanced from the ideas of Eucken, Röpke and Müller-Armack. According to Hayek, justice can first of all only refer to human actions; it does not make sense to speak of just or unjust social states, and therefore the term ‘social justice’ is devoid of meaning.⁷⁶⁷ Secondly, rules of justice are negative rules, inhibiting certain actions. Positive rules ought to be exceptional (e.g. an obligation to help in emergencies).⁷⁶⁸ It would thirdly be unjust to infringe upon somebody’s protected personal

⁷⁶² Cf. W. Röpke, ‘Wirtschaft und Moral’, in A. Rüstow (ed.), *Was wichtiger ist als Wirtschaft: Vorträge auf der fünfzehnten Tagung der Aktionsgemeinschaft Soziale Marktwirtschaft am 29. Juni 1960 in Bad Godesberg*, Hoch, Ludwigsburg, 1960, pp. 27-8.

⁷⁶³ A. Müller-Armack, ‘Vorschläge zur Verwirklichung der Sozialen Marktwirtschaft’, in A. Müller-Armack, *Genealogie der Sozialen Marktwirtschaft: Frühschriften und weiterführende Konzepte*, ed. by E. Tuchfeldt & E. Dürr, Haupt, Bern et al., 1974, p. 90, emphasis in the original. ‘We feel committed to two great ends, liberty and social justice.’ (translation: author).

⁷⁶⁴ Cf. *ibid.*, p. 92.

⁷⁶⁵ Cf. Nutzinger & Hecker, p. 557.

⁷⁶⁶ Cf. M. Wörsdörfer, *Die normativen und wirtschaftsethischen Grundlagen des Ordoliberalismus*, doctoral dissertation, University of Frankfurt, 2011, p. 206.

⁷⁶⁷ Cf. F. A. von Hayek, ‘Die Illusion der sozialen Gerechtigkeit’, in *Recht, Gesetzgebung und Freiheit*, vol. 2, Verlag Moderne Industrie, Landsberg am Lech, 1981, pp. 53-6, 93.

⁷⁶⁸ Cf. *ibid.*, pp. 59.

sphere, and fourthly, rules of justice ought not to violate other already existing and more general rules.⁷⁶⁹

Hayek's concept of justice was only concerned with justice of an initial state and justice in the process, not with justness of outcomes. For this reason, Hayek is opposed to discussions about justness of prices or distributions.⁷⁷⁰ Justice rather demands the acceptance of the outcome of free markets.⁷⁷¹

Hayek understood the framework of institutions as an outcome of and as subject to evolutionary change. This process of evolution does not lead to an ideal end-state; it is at work at all times. Evolution cannot be altered by human actions, it is necessarily undirected and will inevitably lead to a lot of suffering and undesired outcomes. Hayek concluded that evolution cannot be just. Hence, to demand justice in all evolutionary changes would mean to demand an end to the evolutionary process altogether – a standstill that Hayek rejects.⁷⁷²

5.6.2 John Rawls

The leitmotif of John Rawls' (1921-2002) 'A Theory of Justice' is fairness⁷⁷³ which can be interpreted as the demand for impartiality⁷⁷⁴. Rawls stood in the tradition of Plato and Aristotle and rated justice as the highest of all virtues: The 'right' has priority over the 'good'.⁷⁷⁵ Justice requires that men are not treated as means but as ends in themselves.⁷⁷⁶ Rawls accepted that other concepts, as for example efficiency or stability, are

⁷⁶⁹ Cf. Hecker, p. 179.

⁷⁷⁰ Cf. F. A. von Hayek, 'Liberalismus', in F. A. von Hayek, *Die Anmaßung von Wissen: Neue Freiburger Studien*, ed. by W. Kerber, Mohr Siebeck, Tübingen, 1996, pp. 235-7.

⁷⁷¹ Cf. Hecker, p. 185. Original: F. A. von Hayek, *Grundsätze einer liberalen Gesellschaftsordnung: Aufsätze zur politischen Philosophie und Theorie*, ed. by V. Vanberg, Mohr Siebeck, Tübingen, 2002, p. 123.

⁷⁷² Cf. F. A. von Hayek, *Die verhängnisvolle Anmaßung: Die Irrtümer des Sozialismus*, Mohr Siebeck, Tübingen, 1996, first published 1982, pp. 78-9.

⁷⁷³ Cf. Mathis, p. 121.

⁷⁷⁴ Cf. Sen, *The idea of justice*, p. 54.

⁷⁷⁵ Cf. Mathis, p. 122.

⁷⁷⁶ Cf. J. Rawls, *A theory of justice*, Harvard University Press, Cambridge MA, 2005, reprint of 1st ed. 1971, p. 179.

central for a functioning society, but the most important one is justice and institutions are first of all to be judged in relation to their justness.⁷⁷⁷

According to Rawls, a 'conception of justice is a set of principles for choosing between the social arrangements which determine this division [of primary goods] and for underwriting a consensus as to the proper distributive shares.'⁷⁷⁸ He defines primary goods as 'things that every rational man is presumed to want. These goods normally have a use whatever a person's rational plan of life.'⁷⁷⁹ Rawls lists the following: '(1) the basic liberties (freedom of thought and liberty of conscience, etc.), (2) freedom of movement and the choice of occupation, (3) powers and prerogatives of office and positions of responsibility, (4) income and wealth, (5) and the social bases of self-respect.'⁷⁸⁰

There are a number of criteria according to which the distribution of primary goods could be carried out. First of all there would be the utilitarian principle of utility. This criterion considers all distributions as just as long as they go along with the greatest sum of satisfactions. How this sum of satisfactions and its distribution come about does not matter. Rawls criticised that the modalities of the formation of a certain distribution affect the sum of satisfactions that results. Therefore, these modalities cannot be neglected.⁷⁸¹ Also, 'each member of society has an inviolability founded on justice which even the welfare of everyone else cannot override, and . . . a loss of freedom for some is not made right by a greater of satisfactions enjoyed by many'⁷⁸².

Secondly, one could try to achieve a Pareto-efficient distribution. Pareto-efficiency, however, yields a range of possible, that is to say Pareto-optimal solutions. The Pareto-criterion cannot determine the best possible solution and can for that reason only count as an incomplete criterion.⁷⁸³ Besides, since you can only maximise one variable, it is

⁷⁷⁷ Cf. O. Höffe, 'Einführung in Rawls' Theorie der Gerechtigkeit', in J. Rawls, *Eine Theorie der gerechtigkeit*, ed. by O. Höffe, 2nd ed., Akademie Verlag, Berlin, 2006, pp. 8-9.

⁷⁷⁸ J. Rawls, 'Distributive Justice', in E. S. Phelps (ed.), *Economic Justice*, Penguin, New York, 1973, p. 319.

⁷⁷⁹ Rawls, *A theory of justice*, p. 62.

⁷⁸⁰ Ibid., pp. 62, 92.

⁷⁸¹ Cf. Rawls, 'Distributive justice', pp. 320-1.

⁷⁸² Ibid., pp. 320-1.

⁷⁸³ Cf. ibid., p. 325.

impossible to maximise the outcome of the distribution for all groups of society at the same time. You need to choose from which point of view you want to maximise. In a democratic society, it seems natural to select the perspective of the least advantaged group and thus it follows that the aim of the distribution process is to maximise the long-term prospects of the least advantaged in society.⁷⁸⁴

To construct such a society, Rawls conducted a thought experiment with four premises: (1) in an original position, individuals have a consistent system of preferences regarding their future life in the society that is to come. (2) These individuals are mutually disinterested; that is, they pursue only their self-interest. (3) Also they have general knowledge about society and (4) have a certain sense of justice. There are two main restrictions: (a) everyone is completely ignorant about his or her position in the future society. Rawls calls this the 'veil of ignorance'. (b) Coalitions are not permitted.⁷⁸⁵ The veil of ignorance constitutes a situation of uncertainty. Whereas there are straight-forward decision making rules for situations under certainty; that is, maximise utility, for decisions under risk; that is, maximise expected utility, decisions under actual uncertainty are less well-defined. If you do not know the probabilities of future events you can for example either choose to maximise the best possible situation (maximax) or you can maximise the worst possible situation (maximin). Rawls decided to use the risk-averse maximin-criterion.⁷⁸⁶

Rawls' approach led him to two principles: firstly, the liberty principle aiming at greatest possible liberty, secondly, the difference principle: 'Social and economic inequalities are to be arranged so that they are both: (a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and (b) attached to offices and positions open to all under conditions of fair equality of opportunity.'⁷⁸⁷ The difference principle implies that a fair equality of opportunity has priority over productivity and utility maximisation.⁷⁸⁸

⁷⁸⁴ Cf. Rawls, 'Distributive justice', p. 361.

⁷⁸⁵ Cf. Rawls, *A theory of justice*, pp. 130-42.

⁷⁸⁶ Cf. *ibid.*, pp. 152-3.

⁷⁸⁷ *Ibid.*, pp. 60-1.

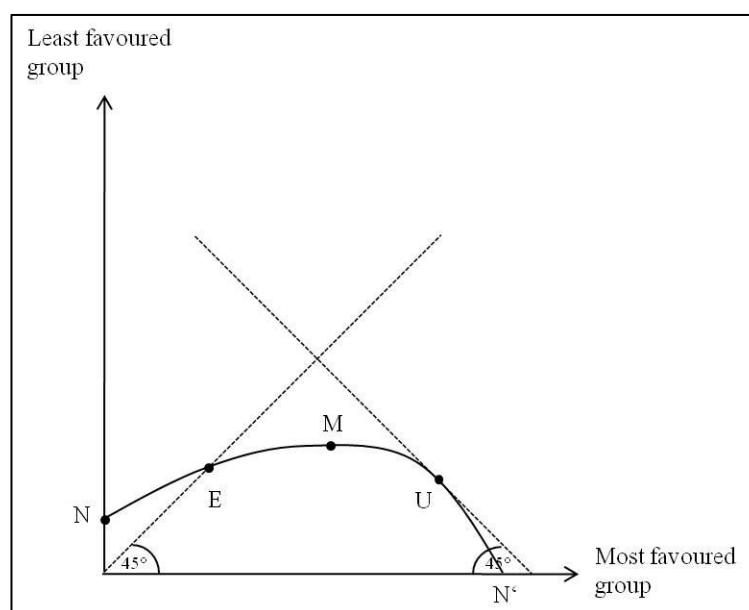
⁷⁸⁸ Cf. *ibid.*, pp. 3-4, 79-80.

Analytically, the following equation describes Rawls' theory of justice in a nutshell:⁷⁸⁹

$$SW_R = \max \min (U_1, U_2, \dots, U_n). \quad (5.3)$$

The social welfare function yields the best possible solution for the least advantaged group of society.

Figure 16: Maximin-Principle



Source: Cf. H. Ribhegge, *Sozialpolitik*, Vahlen, Munich, 2004, p. 33.

Figure 16 depicts the same relationship graphically. Line NN' represents all possible distributions between the most favoured and the least favoured group of society. An equal distribution prevails in E. Starting from point E, both groups can be made better off. From M onwards, only the most favoured group can be made better off; at the expense of the least favoured. In U the sum of what both groups receive is maximised. Moving from N to M, Pareto-improvements are possible. A more unequal distribution would increase overall well-being but at the expense of the least favoured group. The maximin-criterion that Rawls used, yields M.

Having established the principles of distribution, the veil of ignorance can be lifted in three further steps: Firstly, the members of society convene in a constitution-making

⁷⁸⁹ Cf. Petersen, p. 172.

assembly, secondly, they codify the legislation, and finally, the veil of ignorance is wholly removed and the rules are applied.⁷⁹⁰

Although being a philosopher, Rawls and his theory of justice had an enormous impact on economics; maybe also because he made intensive use of rational choice theory. Usually one would see rational choice theory rather as the opposite of a theory of justice, since it focuses completely on self-interested motivations. However, Rawls' construction of the original position is an attempt to achieve an impartial decision of the members of society.⁷⁹¹

It should at least be mentioned that contemporary to Rawls, Robert Nozick (1938-2002) and James Buchanan (*1919) formulated alternative approaches. Nozick argued in favour of a minimal state. Whoever acquires a thing in a just manner can rightfully claim this possession. A transfer of a thing by someone who has a rightful claim to it to someone else, establishes a rightful claim of the latter to the thing. Claims to anything can only result from such just acquisitions or just transfers.⁷⁹² 'A distribution is [therefore] just if it arises from another just distribution by legitimate means',⁷⁹³ he rejected redistribution by the state.⁷⁹⁴ Nozick's theory is consequently historical in nature rather than structural.⁷⁹⁵ Also his theory is one of procedural justice in contrast to Rawls' end-state theory of justice.⁷⁹⁶

Buchanan on the other hand started like Hobbes from a state of war of all against all. Since individuals are better off in a state with an established legal system, they will be able to agree on a constitutional contract to a minimal state that ensures adherence to the law. In so far as it is mutually beneficial; that is, Pareto-efficient, the members of society will agree beyond that on functions of the state that include the supply of public

⁷⁹⁰ Cf. Rawls, *A theory of justice*, p. 200, and cf. Mathis, pp. 127-8.

⁷⁹¹ Cf. Höffe, *Gerechtigkeit*, p. 67.

⁷⁹² Cf. Hagel, p. 182.

⁷⁹³ R. Nozick, *Anarchy, state, and utopia*, Blackwell, Oxford, 1990, p. 151, first published 1974.

⁷⁹⁴ Cf. Hagel, p. 182.

⁷⁹⁵ Cf. *ibid.*

⁷⁹⁶ Cf. H. R. Varian, 'Distributive justice, welfare economics, and the theory of fairness', in *Philosophy and Public Affairs*, vol. 4, no. 3, 1975, p. 224.

goods. Here, the constitutional contract is simply a result of self-interested behaviour, rather than of actual considerations about justice.⁷⁹⁷

5.6.3 Amartya Sen

Like Aristotle, Amartya Sen (*1933) has an ethics-related view of economics. He agrees with Aristotle that ‘though it is worthwhile to attain the end merely for one man, it is finer and more godlike to attain it for a nation or for city-states’⁷⁹⁸, hence economics cannot be content with achieving individual efficiency.⁷⁹⁹ An ethics-related approach can complement pure theory and enrich economics.⁸⁰⁰

In his ‘The Idea of Justice’, Sen refers to two concepts from Sanskrit literature on ethics and jurisprudence: *niti* and *nyaya*. The term *niti* refers to ‘organizational propriety’ and ‘behavioural correctness’, thus it stands for the idea of a perfectly just world.⁸⁰¹ In modern terms *niti* corresponds to what Sen calls transcendental institutionalism, the attempt to answer the question, what perfectly just institutions would look like. As representative authors of this line of thought Sen mentions for example Thomas Hobbes, John Rawls, and Robert Nozick.⁸⁰²

Sen sees two significant problems of the transcendental approach to the problem of justice: Firstly, it might be impossible to reach an agreement on what would be ultimately just.⁸⁰³ He tries to clarify his point by an exemplary story. There are three children – Anna, Bob and Carla – and one flute. All three children claim the flute on different grounds. Anna argues that she is the only one who is able to play the flute, Bob is the poorest of all three and owns no other toys, and finally Carla demands the flute, since she is the one who made it by her own hands’ work.⁸⁰⁴ One can easily see that there are

⁷⁹⁷ Cf. Hagel, pp. 184-7.

⁷⁹⁸ Aristotle, p. 121, book I 1094b.

⁷⁹⁹ Cf. Sen, *On ethics and economics*, p. 4.

⁸⁰⁰ Cf. *ibid.*, p. 9.

⁸⁰¹ Cf. Sen, *The idea of justice*, pp. 20-1.

⁸⁰² Cf. *ibid.*, pp. 5-9.

⁸⁰³ Cf. *ibid.*, p. 9.

⁸⁰⁴ Cf. *ibid.*, p. 13.

good reasons to render the flute to each of the children and if asked to decide, three different individuals might come to three different solutions:

‘Bob, the poorest, would tend to get fairly straightforward support from the economic egalitarian if he is committed to reducing gaps in the economic means of people. On the other hand, Carla, the maker of the flute, would receive immediate sympathy from the libertarian. The utilitarian hedonist may face the hardest challenge, but he would certainly tend to give weight, more than the libertarian or the economic egalitarian, to the fact that Anne’s pleasure is likely to be stronger because she is the only one who can play the flute’⁸⁰⁵.

Besides the difficulty of arriving at an *agreement* about principles of ultimate justice, possible solutions might be *irrelevant*. Rather than discussing possibly unavailable perfect solutions, one should concentrate on choosing among feasible alternatives.⁸⁰⁶ Again, Sen has an example at hand:

‘... if we are trying to choose between a Picasso and a Dali, it is of no help to invoke a diagnosis (even if such a transcendental diagnosis could be made) that the ideal picture in the world is the Mona Lisa.’⁸⁰⁷

Sen contrasts *niti* with the term *nyaya*, which stands for the realisation-focused comparisons of justice.⁸⁰⁸ The central question is not, ‘what would perfectly just institutions look like?’, but ‘how would justice be advanced?’⁸⁰⁹. Sen sees himself in a tradition of thinkers such as Adam Smith, Jeremy Bentham, Karl Marx or John Stuart Mill,⁸¹⁰ by stating that what moves him ‘is not the realization that the world falls short of being completely just, which few of us expect, but that there are clearly remediable injustices around us which we want to eliminate.’⁸¹¹

For his own idea of justice, Sen mainly draws from three sources: John Rawls, Adam Smith, and social choice theory. Whereas Rawls concentrated on the distribution of primary goods, Sen uses the capability approach. This approach contrasts fixation on possession of resources (Rawls) and individual satisfaction (utilitarianism),⁸¹² by asking

⁸⁰⁵ Sen, *The idea of justice*, p. 13.

⁸⁰⁶ Cf. *ibid.*, p. 9.

⁸⁰⁷ *Ibid.*, p. 16.

⁸⁰⁸ Cf. *ibid.*, pp. 20-1.

⁸⁰⁹ *Ibid.*, p. 9.

⁸¹⁰ Cf. *ibid.*, p. 7.

⁸¹¹ *Ibid.*, p. vii.

⁸¹² Cf. Mathis, p. 139.

what actual opportunities an individual has to use his freedom and his possessions.⁸¹³ Rather than focussing on the means to living, the capabilities approach is interested in the end of a good life.⁸¹⁴ The ability to convert resources and primary goods into actual freedoms is considerably different from individual to individual. Thus, an equal distribution of primary goods can go along with inequalities in actual freedom enjoyed. Sen mentions the example of a wheelchair user, who might have the same resources of primary goods as a non-disabled person, but is still endowed with fewer capabilities.⁸¹⁵ Sen surmises that economists are usually preoccupied with homogenous parameters such as income or utility because of their fondness of maximising and minimising. Capabilities, however, are diverse and such mathematical operations are therefore not applicable to them.⁸¹⁶ They require ‘judgement’ rather than ‘counting’.⁸¹⁷ Justice, for Sen, is ‘the elimination of unambiguous inequalities in capabilities’⁸¹⁸. What is more, it requires equal access to basic capabilities, such as health care.⁸¹⁹

In order to bring objectivity into the discussion of justice, Rawls constructed the veil of ignorance, Habermas postulated public discourse, and Adam Smith used the concept of the impartial spectator.⁸²⁰

‘The insolence and brutality of anger, in the same manner when we indulge its fury without check or restraint, is, of all objects, the most detestable. But we admire that noble and generous resentment which governs its pursuit of the greatest injuries, not by the rage which they are apt to excite in the breast of the sufferer, but by the indignation which they naturally call forth in that of the impartial spectator; which allows no word, no gesture, to escape it beyond what this more equitable sentiment would dictate; which never, even in thought, attempts any greater vengeance, nor desires to inflict any greater punishment, than what every indifferent person would rejoice to see executed.’⁸²¹

⁸¹³ Cf. Sen, *The idea of justice*, pp. 19, 233.

⁸¹⁴ Cf. *ibid.*, p. 234.

⁸¹⁵ Cf. A. Sen, *Inequality reexamined*, Sage, New York, 1992, p. 81.

⁸¹⁶ Cf. Sen, *The idea of justice*, pp. 239-40.

⁸¹⁷ Cf. *ibid.*, p. 395.

⁸¹⁸ Sen, *Inequality reexamined*, p. 7. An equality of capabilities is not attainable, since capability comparisons are necessarily incomplete. Unambiguous inequalities, however, ought to be eliminated. Cf. *ibid.*

⁸¹⁹ Cf. Hecker, p. 270.

⁸²⁰ Cf. Sen, *The idea of justice*, pp. 44-5.

⁸²¹ Smith, *The theory*, p. 31.

Sen refers to the impartial spectator as a means to achieve objectivity in public discussions. The solutions this construction leads to allow for a certain degree of incompleteness, they do not need to be ultimately just, ‘plausibly just’ might be sufficient.⁸²²

Besides the Rawlsian theory of justice and the Smithian impartial spectator, Sen finds that important insights can be gained from social choice theory as well. Instead of searching for perfectly just institutions, social choice theory focuses on the social states that actually emerge. Such approaches are apt to contemplate on actual social states and to assess them according to their justness, instead of being preoccupied with possibly unattainable perfectly just states.⁸²³ The comparative method of social choice theory and its recognition of an inescapable plurality of principles are in accordance with Sen’s own idea of justice. Furthermore, Sen acknowledges favourably its openness to partial solutions and to diverse interpretations and inputs (e.g. the impartial spectator) and finally its emphasis on public reasoning.⁸²⁴

5.6.4 Economic Ethics

Before coming to an end, the ideas of justice of the three main authors of the (mainly German) discussion about economic ethics – Karl Homann, Peter Ulrich, and Peter Koslowski – shall be briefly discussed.

After initially being mainly concerned with the justice of actions – for example the just price – later, economics also contemplated on the justice of systems – the question of social justice.⁸²⁵ Karl Homann (*1943) explicitly states that a price is just, if it is a result of the market process. Particularly high prices serve the function of allocating resources efficiently and in fulfilling this function can be considered to be just.⁸²⁶ In the context of social justice, Homann refers to Buchanan. The original position is a state without normativity. Society only agrees on a constitution and further norms and rules, if these rules

⁸²² Cf. Sen, *The idea of justice*, p. 135.

⁸²³ Cf. *ibid.*, p. 86.

⁸²⁴ Cf. *ibid.*, pp. 106-11.

⁸²⁵ Cf. K. Homann, *Wirtschafts- und Unternehmensethik*, Vandenhoeck & Ruprecht, Göttingen, 1992, pp. 66-7.

are a Pareto-improvement.⁸²⁷ There cannot be any external criteria or meta-laws that can determine the justness of these rules. Their justness lies in the voluntary agreement of the society.⁸²⁸ Justice is not a matter of individual action, rather, it refers to the institutional framework. Ethical or just actions mean firstly, to act according to the rules of the institutional framework, and secondly, to conform to the system, in a market economy that is to follow your self-interest and to maximise your profit or utility.⁸²⁹

Peter Ulrich (*1948) develops an integrative form of economic ethics, as an intermediate between economic ethics as ‘applied ethics’ and as ‘normative economics’. What he calls applied ethics sees the economy as an ethics-free sphere. Ethical considerations need to be brought into the subject matter externally. Normative economics tries to get rid of ethical categories altogether and thereby transforms the economic principle itself into a norm.⁸³⁰ Contrary to Homann, Ulrich does not accept the outcome of competitive markets with a given institutional framework as automatically just. In fact, the pursuance of self-interest⁸³¹ and the initial status quo (before Pareto-improvements) are subject to ethical-political reason, thus to ethical considerations in the true sense of the word⁸³². In the philosophical justification of his position, Ulrich speaks in favour of a ‘republican liberalism’, which he places between economic liberalism and communitarianism. Economic liberalism reduces all actions to self-interested motivations and also defines justice in connection to Pareto-efficiency and therefore to self-interested behaviour. Then, communitarianism sees the individual as inseparable from society and fails to see the individual as also an autonomous and morally self-committed identity.⁸³³

⁸²⁶ Cf. K. Homann, ‘Gerechtigkeit und Wirtschaftsordnung’, in W. Ernst (ed.), *Gerechtigkeit in Gesellschaft, Wirtschaft und Politik, Studien zur theologischen Ethik no. 46*, Herder et al., Freiburg et al., 1992, p. 120.

⁸²⁷ Cf. K. Homann, ‘Governanceethik und philosophische Ethik mit ökonomischer Methode: Versuch einer Verhältnisbestimmung’, in *Zeitschrift für Wirtschafts- und Unternehmensethik*, vol. 2, 2001, p. 44.

⁸²⁸ Cf. Homann, *Wirtschafts- und Unternehmensethik*, pp. 66-7.

⁸²⁹ Cf. K. Homann, ‘Marktwirtschaft und Unternehmensethik’, in Forum für Philosophie Bad Homburg (ed.), *Markt und Moral: Die Diskussion um die Unternehmensethik*, Haupt, Bern et al., 1994, pp. 112-4.

⁸³⁰ Cf. P. Ulrich, *Integrative Wirtschaftsethik: Grundlagen einer lebensdienlichen Ökonomie*, 4th ed., Haupt, Bern et al., 2008, pp. 101-2.

⁸³¹ Cf. P. Ulrich, *Der entzauberte Markt*, Herder, Freiburg, 2002, pp. 37-9.

⁸³² Cf. Ulrich, *Integrative Wirtschaftsethik*, pp. 205-6.

⁸³³ Cf. *ibid.*, pp. 321-2.

Republican liberalism on the other hand, positions itself in a dialectical relationship of individual ethics and a liberal and just institutional framework; that is, institutional ethics. In this context, it emphasises ethical-political reason in contrast to purely self-interested motivation. Hence, the ideal society is neither based solely on a common perception of values and desirable goods, nor on the market principle (i.e. Pareto-efficiency) only.⁸³⁴

According to Peter Koslowski (*1952), justice as a mindset based on reason aims at continuously and deliberately rendering to each what is properly his.⁸³⁵ As for Hume and many others, the problem of justice emerges for Koslowski as a consequence of scarcity. He claims that in a society without the phenomenon of scarcity, justice would not be relevant.⁸³⁶

To answer the question what exactly it is, that ought to be rendered to everyone, Koslowski, formulated four criteria for justice in exchange: Firstly, the actual individual price should correspond to the prevailing price. In market economies that is usually the market price, which has the advantage of reflecting the subjective evaluations of all market participants. However, Koslowski notes, since the purchasing power of individuals differs, influence on the market price is unevenly distributed.⁸³⁷ Furthermore, he adds, the pure criteria of mutual advantages and efficiency can lead to prices that permanently discriminate certain interests, individuals or groups in a society. The reproductive function of a price is therefore neither to simply maximise individual advantages nor to reproduce static circumstances but to help fulfil the purpose of the economic system; that is, to facilitate demand satisfaction and self-fulfilment of individuals. It follows that in addition to reflecting subjective utility evaluations, a just price system serves the fulfilment of the material purpose of the economic system.⁸³⁸

⁸³⁴ Cf Ulrich, *Integrative Wirtschaftsethik*, pp. 326-9.

⁸³⁵ Cf. P. Koslowski, *Prinzipien der ethischen Ökonomie: Grundlegung der Wirtschaftsethik und der auf die Ökonomie bezogenen Ethik*, Mohr Siebeck, Tübingen, 1988, p. 227. 'Gerechtigkeit ist die beständige, vom Willen mitgetragene und von der Vernunft gelenkte Haltung, jedem das Seine, vor allem sein Recht, zu geben.'

⁸³⁶ Cf. *ibid.*, pp. 251-2.

⁸³⁷ Cf. *ibid.*, pp. 276-9.

⁸³⁸ Cf. *ibid.*, pp. 269-74.

Secondly, the good exchanged ought to be a real good, as opposed to a pseudo-good. This condition is not fulfilled whenever the income of an exchange is not accompanied by a respective value added, for instance if the buyer exploits an exigency of the seller.⁸³⁹

Thirdly, the exchange ought to be mutually advantageous, and finally, the exchange should bring about a true balance of interests.⁸⁴⁰

5.7 Summary and Outlook

This chapter has given an overview over the concept of justice in the history of economic thought. Most importantly it has shown how perception of – and systematic contemplation on – justice have changed and developed over time. As has been stated, Schmoller compared this to the formation of prices on markets: It is not the case that prices form again and again according to the absolute values of supply and demand, but the change of prices is the outcome of changes of the absolute values of supply and demand. Similarly, new ideas of justice are not creations *ex nihilo*, but develop from the entirety of traditional thought on that matter.⁸⁴¹ This tells us first of all why it is so important to be conscious of earlier discourses on justice and secondly it makes us aware of the historicity of the concept itself. Thought about justice is always context specific⁸⁴² and ideas change due to new circumstances. It also follows that contemplation on justice can never become superfluous. For instance, as a consequence of living in a changing ecological environment⁸⁴³ and in a society deeply affected by demographic change, completely new problems need to be addressed in the light of an idea of justice.

In the next chapter it remains to be shown how different ideas of justice correspond to certain problems and developments in society. Moreover, it needs to be addressed how a changing society and theory-inherent aspects of economics have contributed to the al-

⁸³⁹ Cf. Koslowski, *Prinzipien*, p. 238.

⁸⁴⁰ Cf. *ibid.*, p. 229.

⁸⁴¹ Cf. Schmoller, *The idea of justice*, pp. 710-1.

⁸⁴² Cf. *ibid.*, pp. 712-3.

⁸⁴³ Cf. Höffe, *Gerechtigkeit*, p. 89.

most complete disappearance of the concept of justice from modern mainstream economics.

6 Remembrance of Concepts Past:

Why Justice no longer seems to be relevant in Mainstream Economics

6.1 Introduction

For most of the history of economic thought, the contemplation on economic issues was centred on the concept of justice. Thinkers from Aristotle⁸⁴⁴ to Gustav Schmoller⁸⁴⁵ were largely concerned with justice. Modern economists, however, seem to have forgotten about this, justice does no longer play a significant role, neither in economic theory and research nor in economics textbooks or introductory courses to economics.⁸⁴⁶ Rather, economists speak of their own subject as the ‘science of efficiency’⁸⁴⁷. The question arises, what happened to the concept of justice in the sphere of economic reasoning?

This chapter identifies several developments that led to this shift in the history of economic thought. The individual aspects can be subsumed into three categories: Firstly, aspects of a changing culture and society, which in turn led to a changed perception of justice and a shift of emphasis in economic thought (chapter 6.2). Secondly, developments in economic theory itself; for example the introduction of basic assumptions that exclude the problem of justice in economic models from the start (chapter 6.3). Thirdly, I address a change in the self-perception of the economic science. The concept of justice got lost somewhere on the way from being a branch of ethics to nowadays understand-

⁸⁴⁴ Cf. Aristotle, book V.

⁸⁴⁵ Cf. Schmoller, *The idea of justice*.

⁸⁴⁶ Cf. chapter 5.

⁸⁴⁷ M. Allais, ‘Economics as a science’, in *Cahiers Vilfredo Pareto*, vol. 6, no. 16-17, 1968, p. 5, or S. Dalton, *Economics*, New Delhi, 2005, p. 1, or J. Dahl Rendtorff, *Power and principle in the market place: On ethics and economics*, Ashgate, Farnham et al., 2010, p. 89.

ing itself as ‘social physics’⁸⁴⁸ (chapter 6.4). Chapter 6.5 will conclude with some final remarks.

6.2 Culture and Society

The perception of the concept of justice goes along with changes in culture and the structure of society. In the following chapter, three such factors will be discussed: firstly, the shift from a hierarchical to an egalitarian society with a focus on the individual rather than collective actors, secondly, the emergence of dynamic societies, and thirdly, the evolution of modern competitive markets.

6.2.1 Liberal and Egalitarian Societies

Medieval societies were not egalitarian. The hierarchical structure was seen as part of a divine plan and therefore as immune to critical inquiry.⁸⁴⁹ Correspondingly, just prices were supposed to reflect social relations⁸⁵⁰ in the sense of Aristotelian proportionality⁸⁵¹. This, in turn, was supposed to strengthen the cohesion of society in its natural order.⁸⁵² If the skills of members of society were not exchanged according to their standing in society, the social order would be in danger of falling apart.⁸⁵³ As for Plato,⁸⁵⁴ justice in medieval societies served the purpose of guaranteeing the cohesion of society.

In the course of history, the structure of society changed. Particularly the French revolution initiated a trend towards an egalitarian society, aiming at eliminating all privileges and class distinctions. What was somebody’s ‘due’ could no longer be determined by being born into a certain social class. Rather, anybody’s ‘due’ was a matter of individual achievement and one’s contributions to society. Hence, justice referred to protecting the sphere of individual liberties, in which a member of society could lead a life free from

⁸⁴⁸ Clark, *Economic theory*, p. 30.

⁸⁴⁹ Cf. Senft, p. 54.

⁸⁵⁰ Cf. Mirowski, *More heat than light*, p. 110.

⁸⁵¹ Cf. Aristotle, p. 117, book V 1132b.

⁸⁵² Cf. Polanyi, ‘Aristotle discovers the economy’.

⁸⁵³ Cf. *ibid.*, p. 88.

⁸⁵⁴ Cf. Schefold, *Wirtschaftsstile*, p. 123.

arbitrary intrusion.⁸⁵⁵ The ancient concept of justice as a matter of proportionality seemed to be at odds with an egalitarian society.

This development involved a shift from a focus on collective agents (e.g. classes, etc.) to a focus on individuals.⁸⁵⁶ Otherwise utilitarian thought would not have been able to flourish. Social well-being was then seen as the sum total of individual well-being and was thus sufficiently defined by adding up individual utility values.⁸⁵⁷ Consequently, ideas of something that could be ‘good or bad without being good or bad *for* someone’⁸⁵⁸ were alien to this mindset.

6.2.2 Dynamic Societies

The world in which Aristotle and Aquinas lived was static. The gain of one party necessarily involved the loss of another.⁸⁵⁹ To prevent society from falling apart, the function of the just price was to guarantee a transaction in which neither party gained nor lost.⁸⁶⁰ Consequently, the price should cover the costs and thereby reproduce society;⁸⁶¹ in ancient Greece, this aimed at ensuring the functioning of society,⁸⁶² in the Middle Ages, at reproducing the social order as part of God’s plan.⁸⁶³ As the economy became increasingly dynamic, the exact determination of the just price became more and more difficult and consequently many authors accepted a whole range of prices as just.⁸⁶⁴

The functioning of a price system in a modern, dynamic society differs significantly from the medieval ideas formulated with the idea of a static society in mind. First of all, it is usually assumed that contracts are voluntarily agreed upon. No party would enter

⁸⁵⁵ Cf. Kerber, Westermann & Spörlein, pp. 47-8.

⁸⁵⁶ Cf. Screpanti & Zamagni, pp. 148-9.

⁸⁵⁷ Cf. Bentham, *A fragment on government*, p. ii.

⁸⁵⁸ Helgesson, p. 190.

⁸⁵⁹ Cf. G. W. Wilson, ‘The economics of the just price’, in *History of Political Economy*, vol. 7, no. 1, 1975, pp. 62-3.

⁸⁶⁰ Cf. W. S. Vickrey, ‘An exchange of questions between economics and philosophy’, in E. Phelps (ed.) *Economic justice*, Penguin, New York, 1973, p. 57.

⁸⁶¹ Cf. Spiegel, pp. 62-3.

⁸⁶² Cf. Fehl, p. 251.

⁸⁶³ Cf. Senft, p. 54.

⁸⁶⁴ Cf. Salin, *Politische Ökonomie*, p. 37. Saint Antonin for example accepts three degrees of a just price. Additionally cf. Nutzinger & Hecker, p. 548.

into a contract if it would not expect to gain from such a transaction.⁸⁶⁵ If both parties can gain, since the value of a good is not inherent in the thing itself, a price below the costs of production does not need to be afflicted with negative connotations. Furthermore, it is the function of a price to allocate resources efficiently. Means of production should always be employed in the most profitable sector. In order to achieve that, prices serve as indicators for relative scarcity. Therefore, a price that does not cover the cost of production is not ethically problematic; it can in fact be beneficial for society.⁸⁶⁶ The function of the price system has shifted from the reproduction of society to an efficient allocation of resources. It follows that the idea of a just price that serves reproduction seems to have lost its meaning.

In accordance with the changing society, the focus of economic inquiry also shifted in the 16th to 18th century from mainly static issues (e.g. distribution) to dynamic topics (e.g. growth). Here, the idea was that overall economic growth particularly benefits the least well-off in society. As a result the problem of a just distribution would become less relevant over time.⁸⁶⁷

6.2.3 Modern Competitive Markets

Besides the emergence of an egalitarian and dynamic society, there is a third factor that illustrates how a changing society influenced the perception of the concept of justice: the development of modern competitive markets.

To clarify this point I will first recollect the scholastic doctrine of the just price. Albert the Great noted two conditions for the justness of a price: firstly, the price had to be voluntarily agreed upon, and secondly, the transaction must have been free from deceit. He stated that the estimation of the market would yield such a price.⁸⁶⁸

⁸⁶⁵ Cf. Vickrey, p. 57.

⁸⁶⁶ Cf. Spiegel, pp. 62-3.

⁸⁶⁷ Cf. Sewall, p. 32, and cf. Nutzinger & Hecker, p. 555.

⁸⁶⁸ Cf. Schinzinger, pp. 23-4.

According to Thomas Aquinas, the just price must cover the cost of bringing a product to the market.⁸⁶⁹ The just price cannot be arbitrarily set but corresponds to the true, inherent value of a good.⁸⁷⁰ Here again, the market price was seen as a good indicator for the just price.⁸⁷¹ Also St. Bernard argued in these lines: ‘Just price . . . is what conforms to the valuation of the place, that is, to what the subject of a sale is commonly thought to be worth at such a time and at such a place.’⁸⁷² If the just price is equal to the market price at a particular time and place, how can someone violate the principle of a just price?

A well defined market price is the result of the collective actions of many buyers and sellers,⁸⁷³ which has the advantage of representing an ‘objective’, common valuation.⁸⁷⁴ In the Middle Ages such a situation of perfectly competitive markets was rare.⁸⁷⁵ Often market conditions in transactions tended to a bilateral monopoly in which the common estimation of society was absent and the price was mainly a result of opposing market powers.⁸⁷⁶ Infringements upon the principle of the just price were therefore mainly two-fold: firstly, prevailing market power, and secondly, discrimination for example by taking advantage of individual exigencies or by deceiving the exchange partner.⁸⁷⁷

One can see how the scholastic debate on just prices was specific to a world of particularly imperfect markets. With the development of modern competitive markets it did not become completely irrelevant but it certainly lost importance.

⁸⁶⁹ Cf. Schinzingler, pp. 25-6.

⁸⁷⁰ Cf. Baldwin, pp. 69, 72. Cf. also Thomas Aquinas, *Summa Theologica*, II.II. qu. 77 a. 1.

⁸⁷¹ Cf. de Roover, p. 21, and cf. Thomas Aquinas, *Summa Theologica*, II.II., qu. 77 a. 3.

⁸⁷² Sewall, p. 25. Sewall referred to: A. Graziani, *Storia critica della teoria del valore in Italia*, U. Hoepli, Milano, 1889, p. 19: ‘Prezzo giusto, egli aggiunge è quello conforme all’ estimazione della piazza, second che si, stima comunemente valere in tal tempo e in tal luogo quella cosa che si vuol vendere: e quando uno trasferisca merci da un luogo ad un altro, può venderle al prezzo di questo luogo.’

⁸⁷³ Cf. D. D. Friedman, ‘In defense of Thomas Aquinas and the just price’, in *History of Political Economy*, vol. 12, no. 2, 1980, pp. 235-6.

⁸⁷⁴ Cf. Fehl, p. 260.

⁸⁷⁵ Cf. Nutzinger & Hecker, p. 545.

⁸⁷⁶ Cf. Friedman, ‘In defense of Thomas Aquinas’, pp. 235-6, and cf. Fehl, pp. 260-1.

⁸⁷⁷ Cf. Baldwin, pp. 79-80.

6.3 Economic Theory

We have seen how some of the scholastic demands for justice became more and more realised in developing economic institutions. Similarly, many of these demands are by definition fulfilled in modern economic theory – i.e. neoclassical economics in particular – being implicit in the assumptions.

6.3.1 Neoclassical Assumptions

In neoclassical economics, the two major possible violations of price justice that have been discussed in the previous chapter are excluded by assumption.

First of all there is no discrimination. Economic agents are assumed to be perfectly informed,⁸⁷⁸ there are no threats, no coercion or fraud and each party is free to refuse or agree on a contract.⁸⁷⁹ Furthermore, justice might require constraints of the market forces. Only if two equal partners, in the full meaning of the word, meet in the market, can freely operating market forces be in accordance with the principle of justice.⁸⁸⁰ In reality situations like this might be rare. In theory, however, all economic agents are equal, since all parties of the transaction have only a negligible influence on the market price.⁸⁸¹

Secondly, modern economic theory usually assumes perfect competition.⁸⁸² Consequently, market power as a threat to justice⁸⁸³ is not relevant in the world of economic models.

A further requirement for justice is also assumed to be fulfilled according to neoclassical theory. Whereas Aquinas demanded that a price should cover the costs of production, the price in the neoclassical sphere of perfect competition is equal to marginal cost and equal to the marginal willingness to pay. It follows that the neoclassical market

⁸⁷⁸ In consistence with the scholastic tradition: Cf. Nutzinger & Hecker, p. 545.

⁸⁷⁹ Cf. J. Johnson, *Economic theory and social justice*, MPRA Paper no. 1243, Munich, 2007, p. 21, and cf. Katz & Rosen, pp. 352-7.

⁸⁸⁰ Cf. Schmoller, *The idea of justice*, p. 730.

⁸⁸¹ Cf. Katz & Rosen, pp. 352-4.

⁸⁸² Cf. Arrow & Debreu, pp. 265-6.

⁸⁸³ Cf. Friedman, 'In defense of Thomas Aquinas', pp. 235-6.

price covers the expenses of bringing a good to the market and hence fulfils the scholastic requirement for justice.⁸⁸⁴

Likewise, some considerations about distributive justice are inherent in the assumptions of economic models. Consider for example the general equilibrium model in its formulation by Gérard Debreu. Each agent is assumed to command over some arbitrary amount of initial endowments.⁸⁸⁵ The issue of distributive justice is irrelevant since the initial endowments are treated as given. Furthermore, one could refer to the second fundamental theorem of welfare economics and state that every desired distribution of income could be attained by lump-sum transfers,⁸⁸⁶ an issue I will discuss in more detail later on.

6.3.2 Subjective Price Theory

Aristotle and the Scholastics demanded the equality of price and what was rendered in return. Neither exchange party should gain or lose.⁸⁸⁷ This corresponds to an objective theory of value which states that value is an inherent attribute of the thing itself.⁸⁸⁸ Classical economists argued in a similar way: The value of goods was objectively determined by the labour embodied and factors of production received their natural remuneration.⁸⁸⁹

Doubts about this objective idea of value arose rather early. Even some scholastics themselves, like Antonin, and later Ferdinando Coelestinus Galiani and Anne Robert Jacques Turgot were the first to hint at a subjective theory of value.⁸⁹⁰ Doubting the labour theory of value, Richard Whately in 1832 famously said ‘It is not that pearls fetch a high price *because* men have dived for them; but on the contrary, men dive for them

⁸⁸⁴ Cf. Hecker, p. 311.

⁸⁸⁵ Cf. G. Debreu, *Theory of value: An axiomatic analysis of economic equilibrium*, Wiley, New York, 1959, pp. 74-5.

⁸⁸⁶ Cf. Nutzinger, pp. 392-3. Cf. also Debreu, pp. 90-97, and cf. E. Sohmen, *Allokationstheorie und Wirtschaftspolitik*, Mohr Siebeck, Tübingen, 1976, pp. 94-99.

⁸⁸⁷ Cf. Mathis, p. 192.

⁸⁸⁸ Cf. Sewall, p. 76.

⁸⁸⁹ Cf. Blaug, *Systematische Theoriegeschichte*, pp. 11, 17.

⁸⁹⁰ Cf. Salin, *Politische Ökonomie*, p. 39.

because they fetch a high price.’⁸⁹¹ Eventually Carl Menger initiated the breakthrough of a subjective theory of value:

‘Value is thus nothing inherent in goods, no property of them, nor an independent thing existing by itself. It is a judgment economizing men make about the importance of the goods at their disposal for the maintenance of their lives and well-being. Hence value does not exist outside the consciousness of men.’⁸⁹²

Thus, according to a subjective theory of value, value arises from the mind rather than being a property of the thing itself.⁸⁹³

With an objective theory of value in mind, the problem of a just price is obvious: If a good is worth one hour of your labour, but the seller charges you the equivalent of two hours, you will feel unfairly treated. If, however, you act under the assumption that the good in question has no inherent worth but value arises from your subjective valuation, then being charged two hours of labour would not appear to be ethically problematic, as long as you are willing to pay that price. Thus, a subjective theory of value makes the question of the justness of a price appear to be out of place.

6.3.3 The Invisible Hand and Marginal Productivity Theory

In the second half of the 18th century, Adam Smith revolutionised the perception of the interplay of ethics and economics:

‘It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.’⁸⁹⁴

By pursuing one’s self-interest, one can be ‘led by an invisible hand to promote an end which was no part of [the original] intention.’⁸⁹⁵ In contrast, acting with the intention of promoting the public good is likely to cause more harm than good.⁸⁹⁶ After Adam

⁸⁹¹ R. Whately, *Introduction to political economy*, lecture IX: delivered at Oxford, B. Fellows, London, 1832, p. 253.

⁸⁹² C. Menger, *Principles of economics*, translation J. Dingwall & B. F. Hoselitz, Ludwig von Mises Institute, Auburn, 2007, first published in German 1871, pp. 120-1.

⁸⁹³ Cf. Sewall, p. 76.

⁸⁹⁴ Smith, *An inquiry*, p. 15.

⁸⁹⁵ *Ibid.*, p. 485.

⁸⁹⁶ Cf. *ibid.*, p. 485.

Smith, this ‘private-vices-public-good-doctrine’ was radicalised. John Stuart Mill wrote for instance:

‘In the golden rule of Jesus of Nazareth, we read the complete spirit of the ethics of utility. To do as you would be done by, and to love your neighbour as yourself, constitute the ideal perfection of utilitarian morality.’⁸⁹⁷

‘As yourself’: Therefore, one needs to begin by loving oneself, before one can love one’s neighbour.⁸⁹⁸ Economic motives – i.e. pursuing one’s self-interest – receive a metaphysical justification and as a result, economics itself becomes ethics.⁸⁹⁹

The marginal theory of productivity explains the functional income distribution by the marginal products of the individual factors of production. With this in mind, if it is true in the market sphere that it is one’s responsibility to pursue one’s self-interest (*Das Seinige tun*) and the market mechanism in turn distributes to every factor of production its due (*Das Seinige erhalten*), then the Aristotelian requirements for justice are fulfilled (‘Gerechtigkeit besteht, wenn jeder der das Seinige tut, auch das Seinige erhält’⁹⁰⁰).

This theoretical construction reflects also the perception of many neoclassical economists. According to Hermann Heinrich Gossen, remuneration according to marginal productivity means that ‘not only is a maximum of value created in the end but also each individual receives from this total exactly that part for which he can make a fair claim.’⁹⁰¹ And John Bates Clark wrote in the preface to ‘The Distribution of Wealth’: ‘It is the purpose of this work to show that the distribution of the income of society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates.’⁹⁰² In addition,

⁸⁹⁷ Mill, *Utilitarianism*, 1863, pp. 27-8. As cited by Salin, *Politische Ökonomie*, pp. 90-1.

⁸⁹⁸ Cf. Salin, *Politische Ökonomie*, pp. 90-1, referring to Mill. According to Salin, this idea is what made Nietzsche refer to that ‘blockhead’ (*Flachkopf*) John Stuart Mill. F. Nietzsche, *Der Wille zur Macht: Versuch einer Umwertung aller Werte*, Kröner, Leipzig, 1939, first published 1901, p. 25.

⁸⁹⁹ Cf. Salin, *Politische Ökonomie*, pp. 90-1.

⁹⁰⁰ Schefold, *Wirtschaftsstile*, p. 148.

⁹⁰¹ Gossen, *The laws*, p. 105. ‘nicht bloß, daß durch Erfüllung jener Bedingungen in Summa ein Größtes von Werth geschaffen wird, jeder Einzelne erhält dann genau den Antheil von dieser Summe, auf welchen er billiger Weise Anspruch machen kann. [sic]’ Gossen, *Entwicklung der Gesetze*, p. 90.

⁹⁰² J. B. Clark, *The distribution of wealth: A theory of wages, interest and profits*, Macmillan, New York, 1899, p. v. It has to be noted that actually the distribution according to marginal products reflects relative scarcity rather than the particular productivity of the factor concerned.

Clark extends this idea to the theory of wages: Free competition – as a matter of ‘natural law’ – ‘tends to give to labor what labor creates, to capitalists what capital creates, and to *entrepreneurs* what the coördinating [sic] function creates.’⁹⁰³ Clark is opposed to the idea that labour is exploited in capitalistic economies; in fact he sees a certain idea of justice incorporated in the capitalist system.⁹⁰⁴

6.3.4 Utilitarianism, Utility Theory, and Welfare Economics

From a utilitarian point of view, there is also a second aspect of marginal productivity theory that gives the market economy the impression of being naturally just. If market forces can operate freely and factors of production receive their marginal product, this leads to an optimal allocation of resources;⁹⁰⁵ that is, overall welfare is maximised.⁹⁰⁶ In addition to the requirements of ancient greek philosophy, marginal productivity therefore fulfills the utilitarian requirements for justice.⁹⁰⁷

As a consequence of the change of utility theory from a cardinal to an ordinal approach, distributive justice got further out of the focus of economists. In contrast to cardinal utility theory, in an ordinal approach no quantitative measuring and no interpersonal comparisons of utility are possible.⁹⁰⁸ This makes a difference to the perception of distributive justice, since a cardinal utility theory combined with utilitarian philosophy justifies a tendency towards an equal distribution.⁹⁰⁹ From a utilitarian point of view, circumstances are just if they bring about the greatest good for the greatest number of people. Under the assumption of decreasing marginal utility, identical individual utility curves yield a maximum of utility at an equal distribution.

⁹⁰³ Clark, *The distribution of wealth*, p. 3. Emphasis in the original.

⁹⁰⁴ Cf. R. N. Proctor, *Value-free science? Purity and power in modern knowledge*, Harvard University Press, Cambridge MA, 1991, p. 188.

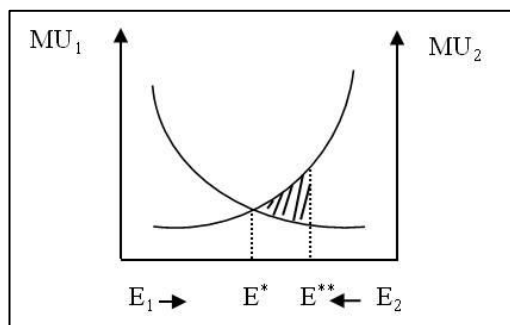
⁹⁰⁵ Cf. Hagel, p. 209.

⁹⁰⁶ Cf. Katz & Rosen, pp. 426-9.

⁹⁰⁷ Cf. Bentham, *A fragment on government*, p. ii.

⁹⁰⁸ Cf. Petersen, pp. 151-2.

⁹⁰⁹ Cf. Proctor, p. 186.

Figure 17: Utilitarianism and Decreasing Marginal Utility

Source: P. Koslowski, *Prinzipien der ethischen Ökonomie: Grundlegung der Wirtschaftsethik und der auf die Ökonomie bezogenen Ethik*, Mohr Siebeck, Tübingen, 1988, p. 287. Based on B. Külp & E. Knappe, *Wohlfahrtsökonomik I: Die Wohlfahrtskriterien*, 2nd ed., Mohr Siebeck, Tübingen, 1984, p. 80.

As figure 17 shows, if the marginal utility curves of individuals one and two are identical and one assumes a negative slope, only an equal distribution (E^*) maximises overall utility. If instead, we would find ourselves in situation E^{**} , the shaded area indicates a deadweight loss and we could increase overall utility by moving from E^{**} to E^* ; that is, by realising a more equal distribution. The analysis holds only for identical marginal utility curves, otherwise utility maximisation would require an unequal distribution. Nevertheless, one can see that under certain circumstances the utilitarian concept of justice can require redistribution of income.

An ordinal utility theory, however, leads to different conclusions: Strictly speaking it is impossible to determine whether one euro has greater marginal utility to a beggar or to a millionaire.⁹¹⁰ Thus, ordinal utility theory restrains itself to a distribution according to marginal productivity and therefore to the contribution of the individual factor of production rather than to individual need. Whereas the old welfare economics⁹¹¹ took dis-

⁹¹⁰ Cf. R. F. Harrod, 'Scope and method of economics', in *The Economic Journal*, vol. 48, no. 191, 1938, p. 396.

⁹¹¹ Cf. e.g. A. C. Pigou, *The economics of welfare*, 4th ed., Macmillan, London, 1960, first published 1920.

tributional aspect into consideration, the new welfare economics⁹¹² is concerned with the efficiency of exchange and production only.⁹¹³

The first fundamental theorem of welfare economics states that every competitive equilibrium is Pareto-efficient; that is, free competition leads to the greatest possible satisfaction of needs. According to the second fundamental theorem of welfare economics, it is possible to separate the problem of allocation from the problem of distribution. By means of lump-sum transfers, every Pareto-efficient state can be attained as a competitive equilibrium. Economists therefore do not need to be concerned with the problem of distributional justice.

This distinction was initiated by Vilfredo Pareto:

‘1. We have a problem of distribution: how should the goods which the society possesses or produces be divided among the members? It is necessary to bring in different kinds of ethical and social considerations, comparisons of ophelimity of different individuals, etc. We do not have to deal with that here. Therefore we will assume this problem solved.

2. We have a problem of production: how to produce the economic goods in such a way that, distributing them according to the rules obtained by the solution of the first problem, the members of the society obtain maximum ophelimity.’⁹¹⁴

There can be no doubt about the importance of distinguishing between allocation and distribution. Yet, after Pareto, this reasonable distinction lead to an exclusive contemplation of problems of allocative efficiency, whereas the issue of distributive justice has been outsourced to other disciplines such as Philosophy and the Political Sciences.⁹¹⁵

⁹¹² Cf. e.g. J. Hicks, ‘Wealth and welfare’, in *Collected essays on economic theory*, vol. 1, Blackwell, Oxford, 1981, pp. 5-7, or cf. V. Pareto, *Manual of political economy*, translation A. S. Schwier, Macmillan, London et al., 1971, originally published in French 1909, pp. 110-3.

⁹¹³ Cf. Hagel, p. 18.

⁹¹⁴ Pareto, *Manual of political economy*, p. 267. In the original French: ‘1. Nous avons un problème de distribution: comment doivent être répartis entre ses membres les biens que possède ou que produit la société? . . . Il faut faire intervenir des considérations éthiques, sociales de différent genre, des comparaisons d’ophélimité de différents individus, etc. Nous n’avons pas à nous en occuper ici. Nous supposerons donc ce problème résolu.

2. Nous avons un problème de production: comment produire les biens économiques de façon que, en les distribuant ensuite suivant les règles obtenues par la solution du premier problème, les membres de la société obtiennent le maximum d’ophélimité?’, V. Pareto, *Manuel d’économie politique*, Giard, Paris, 1909, p. 362.

⁹¹⁵ Cf. Hagel, pp. 18-9.

6.4 Self-Conception

The concept of justice has increasingly been outsourced from economics to neighbouring disciplines.⁹¹⁶ Partly this is a consequence of the changing self-conception of economic science. Thus the indifference or even the aversion of economists to questions of justice can be explained to a certain degree by the contemporary tendency⁹¹⁷ to perceive economics as a form of ‘social physics’⁹¹⁸ which goes along with enormous efforts to formalise economic research. Justice, however, is hardly quantifiable.⁹¹⁹

The modern emphasis on empirical analysis, in particular since William Petty⁹²⁰, is in stark contrast to a normative, justice-based approach. Whereas Aristotle⁹²¹ and the Scholastics⁹²² asked the question, which price *should* prevail, economists since the sixteenth century are rather interested in what the current price *is* and *how* it came about. Thus, the focus has shifted from justification to explanation.⁹²³ Léon Walras, as a representative of neoclassical economics, perceived justice as a legitimate field of inquiry, however, it should not be in the focus of pure theory. As pure mechanics has priority over applied mechanics, Walras argued, pure economic theory should have priority over applied and ethical considerations. As the virtue of justice means rendering to each what is properly his, this should also apply to scientific inquiry and therefore, reflections on justice should be the matter of ‘social economics’ rather than pure economics.⁹²⁴

Particularly since Max Weber, the social sciences work under the postulate of value neutrality. Weber established the fundamental principle that every social scientist ought to distinguish clearly between statements of fact and value judgements.⁹²⁵ Others elabo-

⁹¹⁶ Cf. Hagel, pp. 18-9.

⁹¹⁷ Cf. Screpanti & Zamagni, pp. 148-9.

⁹¹⁸ Clark, *Economic theory*, p. 30.

⁹¹⁹ Cf. Petersen, p. 264.

⁹²⁰ Cf. Petty, p. 244.

⁹²¹ Cf. Polanyi, ‘Aristotle discovers the economy’.

⁹²² Cf. Salin, *Politische Ökonomie*, p. 43.

⁹²³ Cf. Sewall, p. 32.

⁹²⁴ Cf. Walras, *Elements*, pp. 63-79.

⁹²⁵ Cf. M. Weber, ‘Der Sinn der “Wertfreiheit” der soziologischen und ökonomischen Wissenschaften’, in M. Weber, *Gesammelte Aufsätze zur Wissenschaftslehre*, Mohr Siebeck, Tübingen, 1985, first published 1917, p. 462.

rated on this. Karl Popper for instance made it clear that it is impossible to separate a scientist from his individual world view and his value judgements without destroying his personal identity. He stressed, however, the importance of explicitly pointing out combinations of objective statements and value judgements in one's work.⁹²⁶ Standing in this line of thought, many modern economists understood economics as a value-free science.⁹²⁷ John Neville Keynes stated the proposition that it is possible to study 'economic laws or uniformities without passing ethical judgements'⁹²⁸, Lionel Robbins saw 'economic analysis [a]s *wertfrei* in the Weber sense'⁹²⁹ and according to Milton Friedman 'positive economics is in principle independent of any particular ethical position of normative judgments', it is 'an "objective" science, in precisely the same sense as any of the physical sciences.'⁹³⁰ Friedman went on to say that differences about economic policy were merely a result about different 'predictions about the economic consequences of taking action – differences that in principle can be eliminated by the progress of positive economics'⁹³¹. Consequently, ideal economic policy can be attained by improving economic theory without referring to considerations of justice at all. In a value free economic science, it appears to be the case that there simply is no space for the concept of justice. In contrast to the issue of efficiency, which can be addressed 'relatively *wert-frei*'⁹³² the problem of justice is inseparably connected to value judgements.

⁹²⁶ Cf. K. R. Popper, 'Die Logik der Sozialwissenschaften', in *Kölner Zeitschrift für Soziologie und Sozial-Psychologie*, vol. 14, 1962, pp. 40-2.

⁹²⁷ Of course there are exceptions. E.g. '[t]here can be no view except from a viewpoint. In the question raised valuations are implied' (G. Myrdal, 'Institutional economics', in *Journal of Economic Issues*, vol. 12, no. 4, 1978, p. 779), or 'value judgments end up by playing a role in our assessment of parameters and the evidence we consider' (F. Modigliani, 'The monetarist controversy or, should we for-sake stabilization policies?', *American Economic Review*, vol. 67, no. 2, 1977, p. 10).

⁹²⁸ J. N. Keynes, *The scope and method of political economy*, Batoche, Kitchener, 1999, first published in 1890, p. 22.

⁹²⁹ Robbins, *An essay*, p. 91, emphasis in the original.

⁹³⁰ M. Friedman, *Essays in positive economics*, University of Chicago Press, Chicago, 1953, p. 4.

⁹³¹ *Ibid.*, p. 5.

⁹³² P. A. Samuelson, 'Evaluation of real national income', in *Oxford Economic Papers*, new series, vol. 2, no. 1, 1950, p. 11. 'Relatively value-free'.

6.5 Conclusions

Since David Hume,⁹³³ many authors have traced the problem of justice – like the concept of efficiency – back to the phenomenon of scarcity.⁹³⁴ One might be surprised about this development if one perceives justice as limiting and correcting the pure striving for efficiency. Resulting from understanding both concepts as arising from the same problem, in neoclassical theory, justice and efficiency are sometimes even treated synonymously. Walras for instance formulated three conditions for justice in exchange with perfect competition: Firstly, all market participants ought to pay the same price. Secondly, the economic costs of production – i.e. marginal costs plus internalised external effects – ought to be covered. Thirdly, firms minimise their costs. Compare the conditions for efficiency: Firstly, there is a uniform market price (efficient exchange). Secondly, the price is equal to marginal costs (efficient bundle of goods). Thirdly, firms minimise their costs (technical efficiency). Understood in this way, the conditions for justice in exchange and those for allocative efficiency are equivalent.⁹³⁵

Possibly, the tendency of economists to outsource the question of justice to neighbouring disciplines might also be due to an existential anxiety⁹³⁶. According to existential philosophy, men respond to the experience of freedom and responsibility for one's deeds by taking 'refuge in habit and diversion' and by being

'predisposed to complacency, conformity to convention, and self-deception. We will argue that there are inescapable patterns imbedded in the nature of things (determinism) and take cover under any universal rule – a slogan, a compact formula, anything that might apply if only it will save us from the task of choosing for ourselves and thereby assuming the hard responsibility of confronting the consequences of our own choices.'⁹³⁷

⁹³³ Cf. Commons, *Institutional economics*, pp. 140-1. Cf. Hume, *An enquiry*, pp. 83-9.

⁹³⁴ Cf. Panther, p. 22, and cf. Koslowski, *Prinzipien*, pp. 251-2.

⁹³⁵ Cf. Hagel, pp. 21-2. Cf. also chapter 4: Aspects of Efficiency.

⁹³⁶ Cf. e.g. S. Kierkegaard, 'The concept of anxiety: A simple psychologically orienting deliberation on the dogmatic issues of hereditary sin', in *Kierkegaard's writings*, vol. 8, ed. and translated by R. Thomte, Princeton University Press, Princeton, 1981, originally published in Danish 1844.

⁹³⁷ Y. Ramstad, 'Institutional existentialism: More on why John R. Commons has so few followers', in *Journal of Economic Issues*, vol. 21, no. 2, 1987, p. 665.

Contemplation on just economic institutions and processes eludes quantitative analysis and cannot be bypassed by referring to 'economic laws'. Thus it seems that economists are particularly anxious people in the existentialist sense:

'Since it is in the very nature of working rules to expand the opportunities available to one class of individuals by placing limits on the activities of another, every recommendation has implicit in it a personal choice regarding whose interests should be advanced at the expense of another's. . . . Instead of accepting personal responsibility for making a choice, economists are perceived from this perspective as likely to search for simple formulas, or a "knowledge" for whose content they themselves will not be held directly responsible, to guide them. Hence, in a desperate attempt to shift responsibility, the economist will search for, and rely upon, formal models and econometric results, that is, "objective" knowledge, and embrace as "inescapable (or natural) forces" such formulas as "supply and demand", "wage equals marginal product", and "price equals marginal cost".'⁹³⁸

⁹³⁸ Ramstad, 'Institutional existentialism', p. 669.

7 Results, Discussion, and Outlook

After justifying a relativistic approach to economics in chapter 2, I indeed found the assumed development in the history of economic thought: from contemplation on justice to a focus on efficiency. Furthermore, in chapter 3, I identified several influences and developments that have been important in bringing about the shift of focus. One could mention many more influences, I presented only a selection of relevant factors, such as most importantly, the emergence of neoclassical theory and therefore the imitation of the natural sciences, and also the separation of production for the household and production for the market⁹³⁹. I then argued that the concept of efficiency is more than simply a law of nature or a positivistic method of economics, but is an inherently normative concept.

Scrutinising the concept of efficiency in chapter 4, I found that the individual aspects of efficiency can be subsumed under three factors: technical efficiency, distributive efficiency, and the efficiency of the output mix. These aspects of efficiency correspond to the functions of an economic system: *what* to produce, *how* to produce, and *for whom* to produce.

In chapter 5, I examined the long history of thought about justice. It became apparent that concepts of justice always build on the sum total of the previous thought on the matter, and thus are no creations *ex nihilo*. Contemplation about justice is always embedded in the respective society and its culture. Whenever the societal environment changes, concepts of justice need to adapt to new circumstances. Consequently, new and original ideas concerning the concept of justice can never become superfluous.

It is all the more regrettable that contemplation on justice seems to have disappeared from the economic mainstream. In chapter 6 I presented a number of reasons for its disappearance. The individual factors can again be subsumed under three groups: factors regarding a changing culture and society, elements of the economic theory, and the self-conception of economics as a science.

⁹³⁹ *Trennung von Haushalt und Betrieb.*

This dissertation identifies one major shift in the history of economic thought in the postulation of pervading scarcity. Since David Hume the necessity of both efficiency and justice are understood as a result of scarcity.⁹⁴⁰ The efficient and just economisation of scarce resources therefore both aim at an optimal solution. The mathematical search for an optimum induces the concentration on one *maximand*, which should preferably be exactly measurable.⁹⁴¹

Hume seems to be partly right that even with regard to justice many problems arise out of the scarcity of resources. Nevertheless many problems of justice are not scarcity-induced. For instance, equality before the law, impartiality of justice and administration, human rights, separation of powers, and the struggle for recognition are not an outcome of the scarcity of resources. Similarly, Cain did not kill his brother Abel, because of a lack of resources, but because God honoured Abel's sacrifice, and not Cain's.⁹⁴² A concept of justice that is solely based on the scarcity postulate, misses the core of the issue: namely, that justice is a relational; that is, social phenomenon.⁹⁴³

If, however, the contemplation on justice is based on scarcity, as is the logic of efficiency, then the calculating method of economics becomes also the logic of ethics.⁹⁴⁴ The resulting search for an optimal state in the context of justice then means that ethics is simply a particular form of efficiency.⁹⁴⁵ Then economists as moral philosophers can limit themselves to (seemingly) value-free calculations, and thus quantitative analyses, rather than facing the challenge of formulating qualitative judgements.⁹⁴⁶

This thesis opens up a lot of questions for future research: In order to deal with the vast material on the initial question, I had to limit my analysis to a selection of historical

⁹⁴⁰ Cf. Commons, *Institutional economics*, pp. 140-1. Cf. Hume, *An enquiry*, pp. 83-9.

⁹⁴¹ Cf. Sen, *The idea of justice*, pp. 239-40, 395.

⁹⁴² Genesis 4: 4-5. Cf. Höffe, *Gerechtigkeit*, pp. 26-7, and cf. A. Honneth, *Kampf um Anerkennung: Zur moralischen Grammatik sozialer Konflikte*, Suhrkamp, Frankfurt am Main, 2003, first ed. 1992.

⁹⁴³ Cf. R. Forst, 'Die erste Frage der Gerechtigkeit', in *Aus Politik und Zeitgeschichte*, vol. 37, 2005, p. 25.

⁹⁴⁴ Cf. Salin, *Politische Ökonomie*, pp. 90-1.

⁹⁴⁵ Cf. Schellschmidt, pp. 366-7.

⁹⁴⁶ Cf. Sen, *The idea of justice*, p. 395.

influences. Many more could also be taken into consideration.⁹⁴⁷ Furthermore, important issues as the relationship between law and justice⁹⁴⁸, or the examination of possible trade-offs between justice and efficiency, could not be undertaken in the context of this dissertation. Finally, the application of theoretical concepts of justice in economic policy, offer an immense range of fascinating research questions.

⁹⁴⁷ E.g. the invention of writing and rational book-keeping, climatic conditions (seasonality requires the creation of inventories and foresighted planning), the neolithic revolution, etc.

⁹⁴⁸ *Recht und Gerechtigkeit*.

References

- Alberti Magni, *Opera Omnia*, ed. by A. Borgnet, Vivès, Paris, 1891.
- Albin, P. S., *Barriers and bounds to rationality: Essays on economic complexity and dynamics in interactive systems*, Princeton University Press, New Jersey, 1998.
- Allais, M., 'Economics as a science', in *Cahiers Vilfredo Pareto*, vol. 6, nos. 16-17, 1968, pp. 5-24.
- Aristotle, *Nicomachean Ethics*, ed. by D. Ross, Oxford University Press, Oxford, 1988, originally *ἠθικά Νικομάχεια*, around 350 BC.
- Arrow, K. & G. Debreu, 'Existence of an equilibrium for a competitive economy', in *Econometrica*, vol. 22, no. 3, 1954, pp. 265-90.
- Aßländer, M. S. & H. G. Nutzinger, 'John Stuart Mill', in H. D. Kurz (ed.), *Klassiker des ökonomischen Denkens: Band 1 Von Adam Smith bis Alfred Marshall*, C. H. Beck, Munich, 2008, pp. 176-95.
- Audi, R., 'Acting for reasons', in *The Philosophical Review*, vol. 95, no. 4, 1986, pp. 511-46.
- Augustine, 'The trinity', in *The fathers of the church*, vol. 45, translation S. McKenna, Catholic University of America Press, Washington, 1963, originally: *De Trinitate* around 417 AD.
- Augustine, 'The city of God: books VIII-XVI', translation G. G. Walsh & G. Monahan, in H. Dressler et al. (ed.), *The fathers of the church*, vol. 14, Catholic University of America Press, Washington, 1981, reprint of the first edition 1952, *De Civitate Dei Contra Paganos* early 5th century AD.
- Augustine, 'The city of God: books XVI-XXII', translation G. G. Walsh & J. H. Daniel, in H. Dressler et al. (ed.), *The fathers of the church*, vol. 24, Catholic University of America Press, Washington, 1981, reprint of the first edition 1953, *De Civitate Dei Contra Paganos* early 5th century AD.
- Augustine, 'The city of God: books I-VII', translation D. B. Zema & G. G. Walsh, in H. Dressler et al. (ed.), *The fathers of the church*, vol. 8, Catholic University of America Press, Washington, 1990, reprint of the first edition 1949, originally: *De Civitate Dei Contra Paganos* early 5th century AD.
- Balassa, B. A., *The Hungarian experience in economic planning: A theoretical and empirical study*, Yale University Press, New Haven et al., 1959.
- Baldwin, J. W., 'The medieval theories of the just price', in *Transactions of the American philosophical society*, vol. 49, pt. 4, 1959.

- Baßeler, U. et al., *Grundlagen und Probleme der Volkswirtschaft*, 19th ed., Schäffer-Poeschel, Stuttgart, 2010.
- Bauer, L. & H. Matis, *Geburt der Neuzeit: Vom Feudalsystem zur Marktgesellschaft*, 2nd ed., Deutscher Taschenbuch Verlag, Munich, 1989.
- Baumol, W. J., *Economic theory and operations analysis*, 4th ed., Prentice Hall, New Jersey, 1977.
- Baumol, W. J. & A. S. Blinder, *Microeconomics: Principles and policy*, 9th ed., South Western, Mason, 2004.
- Becker, G. S., *The economic approach to human behavior*, Chicago University Press, Chicago, 1976.
- Beckmann, M. J., 'The meaning of general equilibrium', in A. Bosch et al. (ed.), *General equilibrium or market process*, Mohr Siebeck, Tübingen, 1990, pp. 51-60.
- Benedictus de Nursia, *The Rule of Saint Benedict*, translation Abbot Parry, Fowler Wright Books, Leominster, 1990.
- Bentham, J., *A Fragment on Government, being an examination of what is delivered on the subject of government in general*, T. Payne, London, 1776.
- Bentham, J., *An introduction to the principles of morals and legislation*, T. Payne, London, 1789.
- Bernau, P., 'Einkommen: Macht Ungleichheit krank?', in *Frankfurter Allgemeine Zeitung*, 03 February 2011, retrieved 23 February 2012, <<http://www.faz.net/s/RubB8DFB31915A443D98590B0D538FC0BEC/Doc~E74591FB6647442179B54825A6121F060~ATpl~Ecommon~Scontent.html>>.
- Bernholz, P. & F. Breyer, *Grundlagen der politischen Ökonomie, Band 1: Theorie der Wirtschaftssysteme*, 3rd ed., Mohr Siebeck, Tübingen, 1993.
- Besanko, D. & R. R. Braeutigam, *Microeconomics*, 3rd ed., Wiley, New York, 2007.
- The Holy Bible*, New Revised Standard Version, Oxford University Press, Oxford, 1995.
- Birnbacher, D., 'Neue Entwicklungen des Utilitarismus', in B. Bievert (ed.), *Ethische Grundlagen der ökonomischen Theorie*, Campus, Frankfurt am Main, 1989.
- Bittner, R., *Doing things for reasons*, Oxford University Press, New York, 2001.
- Blanchard, O., *Macroeconomics*, 4th ed., Prentice Hall, New Jersey, 2006.
- Blaug, M., *Systematische Theoriegeschichte der Ökonomie*, Nymphenburger Verlagshandlung, Munich, 1975.

- Blaug, M., *The methodology of economics: Or how economists explain*, 2nd ed., Cambridge University Press, Cambridge, 1994.
- Blume, L. E. & D. Easley, 'Rationality', in *The new Palgrave dictionary of economics*, ed. by S. N. Durlauf & L. E. Blume, Macmillan, Basingstoke, 2008, retrieved 23 February 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_R000277>.
- Bohnen, A., *Die utilitaristische Ethik als Grundlage der modernen Wohlfahrtsökonomik*, Schwartz, Göttingen, 1964.
- Bohnet, A., 'Preissystem und Preispolitik im Wirtschaftssystem der DDR', in G. Gutmann (ed.), *Basisbereiche der Wirtschaftspolitik in der DDR: Geld-, Finanz- und Preispolitik*, Asperg, Stuttgart, 1983, pp. 43-70.
- Bourdieu, P., *Outline of a theory of practice*, Cambridge University Press, Cambridge UK, 1977.
- Breyer, F., *Mikroökonomik*, 3rd ed., Springer, Berlin, 2007.
- Brown, A. & E. Neuberger, 'Basic features of a centrally planned economy', in M. Bornstein (ed.), *Comparative economic systems*, 5th ed., R. D. Irwin, Homewood, 1985, pp. 177-87.
- Buchanan, A., *Marx and justice: The radical critique of liberalism*, Rowman & Allanheld, New Jersey, 1982.
- Buchanan, A., *Ethics, efficiency, and the market*, Clarendon Press, Oxford, 1985.
- Cairns, J. W., 'Adam Smith and the role of the courts in securing justice and liberty', in R. P. Malloy (ed.), *Adam Smith and the philosophy of law and economics*, Springer, Dordrecht et al., 1994, pp. 31-61.
- Callejas, D. G., 'Biology and economics: Metaphors that economists usually take from biology', in *Ecos de Economia*, no. 24, 2007, pp. 153-64.
- Cantner, U. et al., *Produktivitäts- und Effizienzanalyse: der nichtparametrische Ansatz*, Springer, Berlin, 2007.
- Cicero, *De officiis*, translation J. Higginbotham, University of California Press, Berkeley CA, 1967.
- Clark, J. B., *The distribution of wealth: A theory of wages, interest and profits*, Macmillan, New York, 1899.
- Clark, M. A., *Economic theory and natural philosophy. The search for the natural laws of the economy*, Edward Elgar, Aldershot et al., 1992.
- Commons, J. R., *Legal foundations of capitalism*, Macmillan, New York, 1924.

- Commons, J. R., *Institutional economics: Its place in political economy*, Macmillan, New York, 1934.
- ‘Copenhagen interpretation’, in *Encyclopædia Britannica*, retrieved 03 December 2009, <<http://www.britannica.com/EBchecked/topic/136538/Copenhagen-interpretation>>.
- Cowell, F. A., *Microeconomics: Principles and analysis*, Oxford University Press, Oxford, 2006.
- Crisp, R., ‘Introduction’, in J. S. Mill, *Utilitarianism*, ed. by R. Crisp, Oxford University Press, Oxford, 1998, first published in 1863.
- Dahl Rendtorff, J., *Power and principle in the market place: On ethics and economics*, Ashgate, Farnham et al., 2010.
- Dalton, S., *Economics*, New Delhi, 2005.
- Dancy, J., *Practical reality*, Oxford University Press, Oxford & New York, 2002.
- Darwin, C., *The origin of species*, Digireaders, Stilwell, 2007, first published in 1859.
- Davidson, D., ‘Actions, reasons, and causes’, in *Journal of Philosophy*, vol. 60, no. 23, 1963, pp. 685-700.
- Debreu, G., *Theory of value: An axiomatic analysis of economic equilibrium*, Wiley, New York, 1959.
- Dickertmann, D., *Grundlagen und Grundbegriffe der Volks- und Finanzwirtschaft*, ed. by Bildungsdienst und Sozialwerk des Deutschen Beamtenbundes e.V., Brilon, 1986.
- Diocletian, ‘The edict of Diocletian’, translation F. Tenney, based on T. Mommsen & H. Blümner, in F. Tenney (ed.), *Rome and Italy of the empire, An economic survey of ancient Rome*, vol. 5, Johns Hopkins Press, New Jersey, 1959, originally: 301 AD.
- Dohrn-van Rossum, G., ‘Schlaguhr und Zeitorganisation’, in R. Wendorff (ed.), *Im Netz der Zeit*, Hirzel, Stuttgart, 1989, pp. 49-60.
- Duby, G., *Krieger und Bauern: Die Entwicklung der mittelalterlichen Wirtschaft und Gesellschaft bis um 1200*, Suhrkamp, Frankfurt am Main, 1984.
- Edgeworth, F. Y., *Mathematical psychics: An essay on the application of mathematics to the moral sciences*, Kegan Paul, London, 1881.
- ‘Efficiency’, in *A dictionary of economics*, ed. by J. Black et al., Oxford University Press, 2009, retrieved 23 February 2012, <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t19.e957>>.
- Eichhorn, P., *Das Prinzip Wirtschaftlichkeit*, 2nd ed., Gabler, Wiesbaden, 2000.

- Elardo, J. A. & A. Campbell, 'Choice and the substantivist/formalist debate: A formal presentation of three substantivist criticisms', in *Research in Economic Anthropology*, vol. 25, 2006, pp. 267-84.
- Engels, F., 'Die Entwicklung des Sozialismus von der Utopie zur Wissenschaft', in *Marx Engels Werke*, vol. 19, Dietz, Berlin, 1962, first published in German in 1882, pp. 189-228.
- Engels, F., *The development of socialism from utopia to science*, translation D. de Leon, retrieved 23 February 2012, <http://www.slp.org/pdf/marx/dev_soc.pdf>.
- Eucken, W., 'On the theory of the centrally administered economy: An analysis of the German experiment Part 1', in *Economica*, vol. 15, no. 58, 1948, pp. 79-100.
- Eucken, W., 'On the theory of the centrally administered economy: An analysis of the German experiment Part 2', in *Economica*, vol. 15, no. 59, 1948, pp. 173-93.
- Eucken, W., *Grundsätze der Wirtschaftspolitik*, ed. by E. Eucken & K. P. Hensel, Francke et al., Bern, 1952.
- Eucken, W., *Die Grundlagen der Nationalökonomie*, 8th ed., Springer, Berlin, 1965, first published 1939.
- Euler, R., '“Hessen-Gipfel“ der SPD: Bankmanager kontra Krankenschwester', in *Frankfurter Allgemeine Zeitung*, 18 January 2011, retrieved 23 February 2012, <<http://www.faz.net/s/Rub5785324EF29440359B02AF69CB1BB8CC/Doc~ED2EA212A104B4E6C80579FD0B0EC3691~ATpl~Ecommon~Scontent.html>>.
- Everett, D. L., *Don't sleep, there are snakes: Life and language in the Amazonian jungle*, Pantheon, New York, 2008.
- Fehl, U., 'Die Frage nach dem gerechten Preis', in G. Gutmann & A. Barthel (ed.), *Ethik und Ordnungsfragen der Wirtschaft*, Nomos, Baden-Baden, 1989, pp. 249-67.
- Forst, R., 'Die erste Frage der Gerechtigkeit', in *Aus Politik und Zeitgeschichte*, vol. 37, 2005, pp. 24-31.
- Franklin, B., 'Advice to a young tradesman. Written by an old one', in *Early American Imprints*, Series 1, no. 9119, 1762.
- Friedman, D. D., 'In defense of Thomas Aquinas and the just price', in *History of Political Economy*, vol. 12, no. 2, 1980, pp. 234-42.
- Friedman, M., *Essays in positive economics*, University of Chicago Press, Chicago, 1953.
- Friedman, M., 'The methodology of positive economics', in F. Hahn (ed.), *Philosophy and economic theory*, Oxford University Press, Oxford et al., 1979, pp. 18-35.

- Furger, F., *Ökologische Krise und Marktmechanismen: Umweltökonomie in evolutionärer Perspektive*, Westdeutscher Verlag, Opladen, 1994.
- Fusefeld, D. B., 'Economic theory misplaced: Livelihood in primitive society', in *Trade and market in the early empires: Economies in history and theory*, ed. by K. Polanyi, C. M. Arensberg & H. W. Pearson, Free Press, New York, 1957, pp. 342-56.
- Gadacz, R., 'Potlach', in *The Canadian Encyclopedia*, retrieved 23 February 2012, <<http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1ARTA0006431>>.
- Gehlen, A., *Der Mensch: Seine Natur und seine Stellung in der Welt*, 8th ed., Athenäum Verlag, Frankfurt am Main, 1966.
- Georgescu-Roegen, N., *The entropy law and the economics process*, Harvard University Press, Cambridge MA et al., 1981.
- Ghiselin, M. T., 'Principles and prospects for general economy', in G. Radnitzky (ed.), *Economic imperialism*, Paragon House, New York, 1987, pp. 21-31.
- Goldschmidt, N., 'Gustav Schmoller', in H. D. Kurz (ed.), *Klassiker des ökonomischen Denkens: Band 1 Von Adam Smith bis Alfred Marshall*, C. H. Beck, Munich, 2008, pp. 287-305.
- Gossen, H. H., *Entwicklung der Gesetze des menschlichen Verkehrs, und der daraus fließenden Regeln für menschliches Handeln*, Wirtschaft und Finanzen, Frankfurt am Main, 1987, facsimile of first ed. Braunschweig 1854.
- Gossen, H. H., *The laws of human relations: and the rules of human action derived therefrom*, translation R. C. Blitz, MIT Press, Cambridge MA, 1983.
- Granovetter, M., 'Economic action and social structure: The problem of embeddedness', in *American Journal of Sociology*, vol. 91, no. 3, 1985, pp. 481-510.
- Grassie, W., *Re-reading economics: In search of new economic metaphors for biological evolution*, New York, 2006, retrieved 23 February 2012, <<http://www.metanexus.net/book-review/re-reading-economics-search-new-economic-metaphors-biological-evolution>>.
- Gravelle, H. & R. Rees, *Microeconomics*, 3rd ed., Prentice Hall, Harlow et al., 2004.
- Graziani, A., *Storia critica della teoria del valore in italia*, U. Hoepli, Milano, 1889.
- Gregory, P. R. & R. C. Stuart, *Comparative Economic Systems*, 6th ed., Houghton Mifflin, Boston, 1999.
- Groll, T., 'Versicherungen: Gleichbehandlung könnte alle mehr kosten', *Zeit Online*, 01 March 2011, retrieved 23 February 2012, <<http://www.zeit.de/wirtschaft/geldanlage/2011-03/versicherung-unisex-tarife>>.

- Grotius, H., *The rights of war and peace, in three books. Wherein are explained, the law of nature and nations, and the principal points relating to government*, Thomson Gale, London, 1738, original: 'de jure belli et pacis', Amsterdam, 1625.
- Gröner, H., 'Gerechtigkeitsvorstellungen bei W. Eucken und K. P. Hensel', in G. Gutmann (ed.), *Ethik und Ordnungsfragen der Wirtschaft*, Baden-Baden, 1989, pp. 309-21.
- Gutzeit, W., *Wirtschaftssysteme in der Entwicklung: Theorieansatz für die gesamtwirtschaftliche Organisation einer Volkswirtschaft*, Duncker & Humblot, Berlin, 2006.
- Hagel, J., *Effizienz und Gerechtigkeit*, Nomos, Baden-Baden, 1993.
- Haller, M., 'Mixing economics and ethics: Carl Menger vs. Gustav von Schmoller', in *Social Science Information*, vol. 43, no. 5, 2004, pp. 5-33.
- Hank, R., 'Debatte: Staatsschulden sind gar nicht so übel', in *Frankfurter Allgemeine Zeitung*, 19 December 2010, retrieved 23 February 2012, <<http://www.faz.net/s/Rub0E9EEF84AC1E4A389A8DC6C23161FE44/Doc~E9409B57A082A47E1961B0DB13A0C45E4~ATpl~Ecommon~Scontent.html>>.
- Hank, R. & K. Mrusek, 'Wolfgang Schäuble im Interview: "Wenn Portugal Hilfe braucht, stehen wir bereit"', in *Frankfurter Allgemeine Zeitung*, 16 January 2011, retrieved 23 February 2012, <<http://www.faz.net/s/Rub3ADB8A210E754E748F42960CC7349BDF/Doc~E79C1401EF71649D3B4EFE53381C06835~ATpl~Ecommon~Scontent.html>>.
- Harrod, R. F., 'Scope and method of economics', in *The Economic Journal*, vol. 48, no. 191, 1938, pp. 383-412.
- Hayek, F. A. von, *The road to serfdom*, Chicago University Press, Chicago, 1944.
- Hayek, F. A. von, 'The nature and history of the problem', in F. A. von Hayek (ed.), *Collectivist economic planning*, 6th ed., London, 1963, pp. 1-40.
- Hayek, F. A. von, 'Die Illusion der sozialen Gerechtigkeit', in *Recht, Gesetzgebung und Freiheit*, vol. 2, Verlag Moderne Industrie, Landsberg am Lech, 1981.
- Hayek, F. A. von, *Die verhängnisvolle Anmaßung: Die Irrtümer des Sozialismus*, Mohr Siebeck, Tübingen, 1996, first published 1982.
- Hayek, F. A. von, 'The price system as a mechanism for using knowledge', in M. Bornstein (ed.), *Comparative economic systems*, 5th ed., R. D. Irwin, Homewood, 1985, pp. 29-40.
- Hayek, F. A. von, 'Liberalismus', in F. A. von Hayek, *Die Anmaßung von Wissen: Neue Freiburger Studien*, ed. by W. Kerber, Mohr Siebeck, Tübingen, 1996.
- Hayek, F. A. von, *Grundsätze einer liberalen Gesellschaftsordnung: Aufsätze zur politischen Philosophie und Theorie*, ed. by V. Vanberg, Mohr Siebeck, Tübingen, 2002.

- Heath, T., *Mathematics in Aristotle*, Oxford University Press, Oxford, 1949.
- Hecker, C., *Lohn- und Preisgerechtigkeit: Historische Rückblicke und aktuelle Perspektiven unter besonderer Berücksichtigung der christlichen Soziallehren*, Metropolis, Marburg, 2008.
- Helgesson, G., *Values, norms & ideology in mainstream economics*, doctoral dissertation, Uppsala University, 2002.
- Hensel, K. P., *Grundformen der Wirtschaftsordnung: Marktwirtschaft – Zentralverwaltungswirtschaft*, 4th ed., LIT, Münster et al., 1992.
- Hicks, J., 'Wealth and welfare', in *Collected essays on economic theory*, vol. 1, Blackwell, Oxford, 1981.
- Hirschman, A. O., 'Against parsimony: Three ways of complicating some categories of economic discourse', in *American Economic Review*, vol. 72, no. 2, 1984, pp. 89-96.
- Hirshleifer, J., 'The expanding domain of economics', in *The American Economic Review*, vol. 75, no. 6, 1985, pp. 53-68.
- Hobbes, T., *Leviathan oder Stoff, Form und Gewalt eines bürgerlichen und kirchlichen Staates*, ed. by I. Fetscher, Luchterhand, Neuwied et al., 1966, originally: *Leviathan or the matter, forme and power of a commonwealth ecclesiastical and civil*, London, 1651.
- Hofstadter, R., *Social Darwinism in American thought*, Beacon Press, Boston, 1974, reprint of 1st ed. Philadelphia 1944.
- Homann, K., 'Gerechtigkeit und Wirtschaftsordnung', in W. Ernst (ed.), *Gerechtigkeit in Gesellschaft, Wirtschaft und Politik, Studien zur theologischen Ethik no. 46*, Herder et al., Freiburg et al., 1992, pp. 115-33.
- Homann, K., 'Governanceethik und philosophische Ethik mit ökonomischer Methode: Versuch einer Verhältnisbestimmung', in *Zeitschrift für Wirtschafts- und Unternehmensethik*, vol. 2, 2001, pp. 34-49.
- Homann, K., 'Marktwirtschaft und Unternehmensethik', in Forum für Philosophie Bad Homburg (ed.), *Markt und Moral: Die Diskussion um die Unternehmensethik*, Haupt, Bern et al., 1994, pp. 109-30.
- Homann, K., *Wirtschafts- und Unternehmensethik*, Vandenhoeck & Ruprecht, Göttingen, 1992.
- Honneth, A., *Kampf um Anerkennung: Zur moralischen Grammatik sozialer Konflikte*, Suhrkamp, Frankfurt am Main, 2003, first ed. 1992.
- Höffe, O., *Gerechtigkeit: Eine philosophische Einführung*, 2nd ed., C. H. Beck, Munich, 2004.

- Höffe, O., 'Einführung in Rawls' Theorie der Gerechtigkeit', in J. Rawls, *Eine Theorie der Gerechtigkeit*, ed. by O. Höffe, 2nd ed., Akademie Verlag, Berlin, 2006, pp. 3-26.
- Hume, D., *An enquiry concerning the principles of morals*, ed. by T. L. Beauchamp, Clarendon Press, Oxford, 1998, first published 1751.
- Inbal, B. & A. Bartal et al., 'Empathy and pro-social behavior in rats', in *Science*, vol. 334, 2011, pp. 1427-30.
- Jevons, W. S., *The theory of political economy*, 5th ed., A. M. Kelley, New York, 1965, first published 1871.
- Johnson, J., *Economic theory and social justice*, MPRA Paper no. 1243, Munich, 2007.
- Justi, J. H. G. von, 'Die gütigen und strengen Väter', in *Fabeln und Erzählungen von Thieren und sehr alten längst verrosteten zeiten, bey deren Lesung man ganz sanft und süß wird einschlafen können*, Cologne, 1759.
- Justi, J. H. G. von, 'Abhandlung, von dem so genannten Plusmachen, oder der schädlichen Art, die Einkünfte des Staats zu vermehren', in *Gesammelte politische und Finanz-Schriften*, vol. 3, Scientia, Aalen, 1970, first published 1764, pp. 409-38.
- Kaesler, D., 'Vorwort des Herausgebers', in M. Weber, *Die protestantische Ethik und der Geist des Kapitalismus*, ed. by D. Kaesler, 3rd ed., C. H. Beck, Munich, 2010, first published 1904/05 as essays and 1920 as a monograph, pp. 7-64.
- Kant, I., *Grundlegung zur Metaphysik der Sitten*, ed. by W. Weischedel, Suhrkamp, Frankfurt am Main, 1974, first published 1785.
- Kant, I., *Kritik der praktischen Vernunft*, ed. by W. Weischedel, Suhrkamp, Frankfurt am Main, 1974, first published 1788.
- Kant, I., *Critique of practical reason*, translation M. Gregor, Cambridge University Press, Cambridge, 2005, reprint of 1st ed. 1997, first published 1788.
- Kant, I., *Groundwork of the metaphysics of morals*, translation M. Gregor, Cambridge University Press, Cambridge, 2005, reprint of 1st ed. 1998, first published 1785.
- Katz, M. L. & H. S. Rosen, *Microeconomics*, R. D. Irwin, Homewood et al., 1991.
- Kerber, W., C. Westermann & B. Spörlein, 'Gerechtigkeit', in F. Böckle, F.-X. Kaufmann & K. Rahner (ed.), *Christlicher Glaube in moderner Gesellschaft*, no. 17, Herder, Freiburg, 1982.
- Keynes, J. N., *The scope and method of political economy*, Batoche, Kitchener, 1999, first published in 1890.
- Kierkegaard, S., 'The concept of anxiety: A simple psychologically orienting deliberation on the dogmatic issues of hereditary sin', in *Kierkegaard's writings*, vol. 8,

- ed. and translated by R. Thomte, Princeton University Press, Princeton, 1981, originally published in Danish 1844.
- Kirchgässner, G., 'Ökonomie als imperial(istisch)e Wissenschaft', in *Jahrbuch für neue politische Ökonomie*, vol. 7, 1988, pp. 128-45.
- Knauff, R., 'Die Funktionsmechanismen der Wirtschaftssysteme', in H. Hamel (ed.), *Bundesrepublik, DDR – Die Wirtschaftssysteme: Soziale Marktwirtschaft, Sozialistische Planwirtschaft im Systemvergleich*, 3rd ed., C. H. Beck, Munich, 1979, pp. 93-169
- Knobloch, U., 'Effizienz als oberster Wert? Eine Auseinandersetzung mit den Antworten institutioneller Ökonomik', in *Normative Grundfragen der Ökonomik: Folgen für die Theoriebildung*, ed. by M. Held, Campus, Frankfurt am Main, 1997, pp. 168-88.
- Kohl, K.-H., *Ethnologie – Die Wissenschaft vom kulturell Fremden: Eine Einführung*, C. H. Beck, Munich, 1993.
- Koopmans, T. C., 'Analysis of production as an efficient combination of activities', in T. C. Koopmans (ed.), *Activity analysis of production and allocation*, Wiley, New York, 1951, pp. 33-97.
- Koslowski, P., 'Maximierung von Existenz: Leibniz' Theorie der besten aller möglichen Welten und die Wirtschaftstheorie', in *Studia Leibnitiana*, vol. 19, no. 1, 1987, pp. 54-67.
- Koslowski, P., *Prinzipien der ethischen Ökonomie: Grundlegung der Wirtschaftsethik und der auf die Ökonomie bezogenen Ethik*, Mohr Siebeck, Tübingen, 1988.
- Koslowski, P., 'The categorical and ontological presuppositions of Austrian and neo-classical economics', in A. Bosch et al. (ed.), *General equilibrium or market process*, Mohr Siebeck, Tübingen, 1990, pp. 1-20.
- Koslowski, P., 'Universale Ökonomie als Ontologie und der Theorieimperialismus der Ökonomie in der Soziobiologie und Bioökonomie', in P. Koslowski (ed.), *Wirtschaftsethik – Wo ist die Philosophie?*, Physica, Heidelberg, 2001.
- Koslowski, P., 'Economics as ethical economy and cultural economics in the historical school', in H. H. Nau & B. Schefold (ed.), *The historicity of economics: Continuities and discontinuities of historical thought in 19th and 20th century economics*, Springer, Berlin, 2002.
- Kromphardt, J., *Konzeptionen und Analysen des Kapitalismus*, 4th ed., UTB, Göttingen, 2004.
- Külp, B. & E. Knappe, *Wohlfahrtsökonomik I: Die Wohlfahrtskriterien*, 2nd ed., Mohr Siebeck, Tübingen, 1984.

- Kwakiutl Indian Band (ed.), *Potlach*, retrieved 23 February 2012, <<http://www.kwakiutl.bc.ca/culture/potlatch.htm>>.
- Lachmann, W., *Entwicklungspolitik Band 1: Grundlagen*, 2nd ed., Oldenbourg, Munich et al., 2004.
- Lachmann, W., *Volkswirtschaftslehre 1*, Springer, Berlin, 2006.
- Lagueux, M., 'The forgotten role of the rationality principle in economics', in *Journal of Economic Methodology*, vol. 11, no. 1, 2004, pp. 31-51.
- Lagueux, M., *Rationality and explanation in economics*, Routledge, Abingdon, 2010.
- Lampert, H. & A. Bossert, *Die Wirtschafts- und Sozialordnung der Bundesrepublik Deutschland im Rahmen der europäischen Union*, 16th ed., Olzog, Munich, 2007.
- Lange, O., 'On the economic theory of socialism', in O. Lange & F. M. Taylor (ed.), *On the economic theory of socialism*, 2nd ed., University of Minnesota Press, Minneapolis, 1948, pp. 118-26.
- Laplace, P. S., *A philosophical essay on probabilities*, J. Wiley, New York, 1902, first published in French 1814.
- Laville, F., 'Should we abandon optimization theory? The need for bounded rationality', in *Journal of Economic Methodology*, vol. 7, no. 3, 2000, pp. 395-426.
- 'Law of nature', in *Collins English Dictionary*, 10th ed., Harper Collins, Glasgow, 2009, retrieved 23 February 2012, <<http://dictionary.reference.com/browse/law+of+nature>>.
- Leibenstein, H., *Beyond economic man: A new foundation for microeconomics*, Harvard University Press, Cambridge MA, 1976.
- Leipold, H., 'Gesellschaftstheoretische Fundierung der Wirtschaftssysteme', in H. Hamel (ed.), *Bundesrepublik, DDR – Die Wirtschaftssysteme: Soziale Marktwirtschaft, Sozialistische Planwirtschaft im Systemvergleich*, 3rd ed., C. H. Beck, Munich, 1979, pp. 13-49.
- Leipold, H., 'Planversagen versus Marktversagen', in H. Hamel (ed.), *Bundesrepublik, DDR – Die Wirtschaftssysteme: Soziale Marktwirtschaft, Sozialistische Planwirtschaft im Systemvergleich*, 3rd ed., C. H. Beck, Munich, 1979, pp. 170-211.
- Leipold, H., *Wirtschafts- und Gesellschaftssysteme im Vergleich: Grundzüge einer Theorie der Wirtschaftssysteme*, 5th ed., Fischer, Stuttgart, 1988.
- Levitt, S. D. & S. J. Dubner, *Freakonomics: A rogue economist explores the hidden side of everything*, Penguin, London, 2005.

- Lockwood, B., 'Pareto-efficiency', in *The new Palgrave dictionary of economics*, ed. by S. N. Durlauf & L. E. Blume, Macmillan, Basingstoke, 2008, retrieved 23 February 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_P000024>.
- Luther, M., 'Über Handel und Zinswirtschaft', in H. Beintker, H. Junghans & H. Kirchner (ed.), *Christ und Gesellschaft*, Evangelische Verlagsanstalt, Berlin, 1982, originally published 1524.
- Luther, M., 'On trading and usury', translation C. M. Jacobs, in *Works of Martin Luther*, vol. 4, Castle Press, Philadelphia, 2007, originally in German 1524, pp. 12-27.
- Malthus, R., *An essay on the principle of population*, vol. 1, Cosimo, New York, 2005, first published London & New York 1798.
- Mankiw, N. G., *Principles of microeconomics*, 3rd ed., South Western, Mason, 2004.
- Marshall, A., *Principles of economics: An introductory volume*, 7th ed., Macmillan, London, 1916, first published in 1890.
- Marx, K., *Critique of the Gotha programme*, Elecbook, London, 2001, originally published 1872.
- Marx, K., *Das Kapital: Kritik der politischen Ökonomie*, 3 vols., Europäische Verlagsanstalt, Frankfurt am Main, 1968, first published 1867-1895.
- Marx, K., 'Nachwort zur zweiten Auflage', in K. Marx, *Das Kapital: Kritik der politischen Ökonomie, vol. 1: Der Produktionsprozeß des Kapitals*, Europäische Verlagsanstalt, Frankfurt am Main, 1968, first published 1894, pp. 18-28.
- Mas-Colell, A. et al., *Microeconomic theory*, Oxford University Press, New York et al., 1995.
- Mathis, K. et al., *Efficiency instead of justice?: Searching for the philosophical foundations of the economic analysis of law*, Springer, Dordrecht, 2009.
- Mauvertuis, P. M. de, 'Les loix du mouvement et du repos', in *Histoire de l'académie royale des sciences et belles-lettres de Berlin*, vol. 1746, pp. 267-94.
- Maurer, A. et al., 'Die Dominanz der Ökonomie: Reflexionen zur Ökonomisierung verschiedener Lebensbereiche in modernen Gesellschaften', in H. Reimann (ed.), *Probleme moderner Gesellschaften*, Westdeutscher Verlag, Opladen, 1994, pp. 99-121.
- Mauss, M., *The gift*, translation I. Cunnison, Cohen & West, London, 1966, originally in French 1923.
- Mead, M., *Cooperation and competition among primitive peoples*, Beacon Press, Boston, 1966, first published 1937.
- Meier, S., *The economics of non-selfish behavior: Decisions to contribute money to public goods*, Edward Elgar, Cheltenham UK & Northampton MA, 2006.

- Menger, C., *Grundsätze der Volkswirtschaftslehre*, Scientia Verlag, Aalen, 1968, reprint of the 2nd ed. 1923.
- Menger, C., 'Über die sogenannte ethische Richtung der Politischen Ökonomie', in F. A. von Hayek (ed.), *Carl Menger – Gesammelte Werke*, 2nd ed., Mohr Siebeck, Tübingen, 1969, first published 1883, pp. 288-301.
- Menger, C., *Investigations into the method of the social sciences*, New York University Press, New York & London, 1985, first published in 1883 as 'Untersuchungen über die Methode der Socialwissenschaften und der Politischen Oekonomie insbesondere'.
- Menger, C., *Principles of economics*, translation J. Dingwall & B. F. Hoselitz, Ludwig von Mises Institute, Auburn, 2007, first published in German 1871.
- Milanovic, B., 'Income, inequality, and poverty during the transition from planned to market economy', *World Bank regional and sectoral studies*, no. 17419, Washington, 1998.
- Mill, J. S., *Principles of political economy: with some of their applications to social philosophy*, 2 vols., J. W. Parker, London, 1848.
- Mill, J. S., *Utilitarianism*, Elecbook, London, 2001, first published 1863.
- Mirowski, P., 'Physics and the "Marginalist Revolution"', in *Cambridge Journal of Economics*, no. 8, 1984, pp. 361-79.
- Mirowski, P., *More heat than light*, Cambridge University Press, Cambridge, 1991, reprint of 1st ed. 1989.
- Mises, L. von, 'The treatment of "irrationality" in the social sciences', in *Philosophy and Phenomenological Research*, vol. 4, no. 4, 1944, pp. 527-46.
- Mises, L. von, *Theory and history: An interpretation of social and economic evolution*, Yale University Press, New Haven, 1957.
- Mises, L. von, *The ultimate foundation of economic science*, D. van Nostrand, New Jersey, 1962.
- Mises, L. von, 'Economic calculation in the socialist commonwealth', in N. G. Pierson & F. A. von Hayek (ed.), *Collectivist economic planning*, 6th ed., Routledge, London, 1963, pp. 87-130.
- Mises, L. von *Human action: A treatise on economics*, 4th ed., Fox & Wilkes, San Francisco, 1996, first published 1949.
- Modigliani, F., 'The monetarist controversy or, should we forsake stabilization policies?', *American Economic Review*, vol. 67, no. 2, 1977, pp. 1-19.
- Montias, J. M., *Central Planning in Poland*, Yale University Press, New Haven, 1962.

- Morrisson, C., 'Income distribution in east European and Western countries', in *Journal of Comparative Economics*, vol. 8, 1984, pp. 121-38.
- Mumford, L., *Der Mythos der Maschine: Kultur, Technik und Macht*, Europa-Verlag, Wien, 1974.
- Müller, J. B., 'Die Ökonomisierung unserer Lebenswelt', in *Zeitschrift für Religions- und Geistesgeschichte*, no. 56, 2004, pp. 332-48.
- Müller, J. K. & K. P. Sauer, *Evolution der Pflanzen- und Tierwelt: Ursachen und Mechanismen der Evolution*, Beltz Verlag, Tübingen, 1987.
- Müller-Armack, A., 'Vorschläge zur Verwirklichung der Sozialen Marktwirtschaft', in A. Müller-Armack, *Genealogie der Sozialen Marktwirtschaft: Frühschriften und weiterführende Konzepte*, ed. by E. Tuchfeldt & E. Dürr, Haupt, Bern et al., 1974, originally published 1948, pp. 90-109.
- Myrdal, G., *The political element in the development of economic theory*, Routledge, London, 1953.
- Myrdal, G., 'Institutional economics', in *Journal of Economic Issues*, vol. 12, no. 4, 1978, pp. 771-83.
- N. N., 'Schäuble: Begrenzte Steuersenkungen möglich', *Stuttgarter Zeitung*, 07 March 2011, retrieved 24 March 2011, <<http://www.stuttgarter-zeitung.de/inhalt.steuern-schaeuble:-begrenzte-steuersenkungen-moeglich.4078179a-2fb0-4b56-8677-c47223ba7aea.html>>.
- Nagel, B., *Die Eigenarbeit der Zisterzienser: Von der religiösen Askese zur wirtschaftlichen Effizienz*, Metropolis, Marburg, 2006.
- Nau, H. H., 'Politisches Ethos und sozialökonomisches Telos: Gustav Schmollers Konzept einer historisch-ethischen Nationalökonomie als Kulturwissenschaft', in G. Schmoller, *Historisch-ethische Nationalökonomie als Kulturwissenschaft*, ed. by H. H. Nau, Metropolis, Marburg, 1998, pp. 13-65.
- Nau, H. H., 'History Matters: From historical economics to modern institutionalism', in H. H. Nau & B. Schefold (ed.), *The historicity of economics: Continuities and discontinuities of historical thought in 19th and 20th century economics*, Springer, Berlin, 2002.
- Negru, I., 'The plural economy of gifts and markets', in R. Garnett, E. K. Olsen & M. Starr (ed.), *Economic pluralism*, Routledge, London, 2010, pp. 194-204.
- Nell, E. J., 'On the history of economic theory and the emergence of capitalism', in *Jahrbuch für Wirtschaftsgeschichte*, no. 1, 2009, pp. 103-34.
- Nietzsche, F., *Der Wille zur Macht: Versuch einer Umwertung aller Werte*, Kröner, Leipzig, 1939.

- North, D., *Structure and change in economic history*, Norton, New York, 1981.
- North, D., 'Economic performance through time', in *American Economic Review*, vol. 84, no. 3, 1994, pp. 359-68.
- Nozick, R., *Anarchy, state, and utopia*, Blackwell, Oxford, 1990, first published 1974.
- Nutzinger, H. G., 'Ökonomik und Gerechtigkeit: Grundsätzliche Überlegungen und der Anwendungsfall Klimapolitik', in T. Beschorner et al. (ed.), *Wirtschafts- und Unternehmensethik: Rückblick, Ausblick, Perspektiven*, Mering Hampp, Munich et al., 2005, pp. 383-423.
- Nutzinger, H. G. & C. Hecker, 'Gerechtigkeit in der Ökonomie: Ein unlösbarer Widerspruch?', in *Leviathan*, vol. 36, no. 4, 2008, pp. 543-75.
- Onorati, J., 'Debating economic anthropology within a primitive context', in *Emory Endeavors Journal*, vol. 1, 2007, retrieved 23 February, 2012, <<http://history.emory.edu/home/assets/documents/endeavors/volume1/Joeys.pdf>>.
- Ötsch, W., 'Bilder der Wirtschaft: Metaphern, Diskurse und Hayeks neoliberales Hegemonialprojekt', *Johannes Kepler Universität Linz Working Paper no. 0709*, Linz, 2007.
- Ötsch, W., 'Die mechanistische Metapher in der Theoriegeschichte der Nationalökonomie', *Johannes Kepler Universität Linz Working Paper no. 9313*, Linz, 1993.
- Panther, S., 'Gerechtigkeit in der Ökonomie: Empirische Ergebnisse und ihre möglichen Konsequenzen', in H. G. Nutzinger (ed.), *Gerechtigkeit in der Wirtschaft: Quadratur des Kreises?*, Metropolis, Marburg, 2006, pp. 21-50.
- Pareto, V., 'Anwendungen der Mathematik auf Nationalökonomie', in: *Encyklopädie der mathematischen Wissenschaften mit Einschluss ihrer Anwendungen*, vol. 1, B. G. Teubner Verlag, Leipzig, 1905, pp. 1094-120.
- Pareto, V., *Manuel d'économie politique*, Giard, Paris, 1909.
- Pareto, V., *Manual of political economy*, translation A. S. Schwier, Macmillan, London et al., 1971, originally published in French 1909.
- Pasinetti, L. L., *Lectures on the theory of production*, Columbia University Press, New York, 1977.
- Pescherino, C. F., 'Politische Gedanken über die bisher zwar ungebräuchlichen aber doch dem Lande und Fürsten höchstspriesslichen Generalzehenden, worinn derselben Vollkommenheit erwiesen, die Beschaffenheit der Anlagen und Unzulänglichkeit derjenigen, so bisher gebraucht worden, gezeigt, auch worauf die Glückseligkeit eines Staats beruhe, demonstriert wird. Alles mit politischen Reflexionen und historischen Exempeln erläutert', in W. von Schröder (ed.), *Fürstliche Schatz- und Rentenkammer nebst seinem Tractat vom Goldmachen*, Topos, Vaduz, 1978, first published Leipzig 1752, pp. 485-622.

- Peters, H.-R., *Einführung in die Theorie der Wirtschaftssysteme*, 2nd ed., Oldenbourg, Munich et al., 1993.
- Petersen, H.-G., *Ökonomik, Ethik und Demokratie*, Nomos, Baden-Baden, 1993.
- Petty, W., 'Preface to first essay on political arithmetic', in C. H. Hull (ed.), *The economic writings of Sir William Petty*, vol. 1, Cambridge University Press, Cambridge, 1899, pp. 241-5.
- Peukert, H., 'Justi's concept of moral economics and the good society', in J. H. G. von Justi, *The beginnings of political economy*, ed. by J. G. Backhaus, Springer, Boston, 2009, pp. 117-32.
- Pigou, A. C., *Socialism versus capitalism*, Macmillan, London, 1937.
- Pigou, A. C., *The economics of welfare*, 4th ed., Macmillan, London, 1960, first published 1920.
- Plato, 'Laws', in *Plato in twelve volumes*, vols. 10 & 11, translation R. G. Bury, Harvard University Press, Cambridge MA, 1984, originally *Nómoi*, around 347 BC.
- Plato, 'Republic', translation G. M. A. Grube & C. D. C. Reeve, in J. M. Cooper (ed.), *Plato: Complete works*, Hackett, Indianapolis, 1997, originally: *Πολιτεία* around 380 BC.
- Polanyi, K., *The great transformation*, Farrar & Rinehart, New York, 1944.
- Polanyi, K., 'Our obsolete market mentality: Civilization must find a new thought pattern', in *Commentary*, vol. 3, 1947, pp. 109-17.
- Polanyi, K., 'Aristotle discovers the economy', in *Trade and market in the early empires: Economics in history and theory*, ed. by K. Polanyi et al., Free Press, New York, 1957.
- Polanyi, K., 'The economy as instituted process', in *Trade and market in the early empires: Economics in history and theory*, ed. by K. Polanyi et al., Free Press, New York, 1957.
- Polanyi, K., 'Anthropology and economic theory', in F. Morton (ed.), in *Readings in anthropology*, 2nd ed., Thomas Cromwell Company, New York, 1968, pp. 161-84.
- Polanyi, K., *The livelihood of man*, ed. by H. W. Pearson, Academic Press, New York et al., 1977.
- Pollack, D., 'Auf dem Weg zu einer Theorie des Staatssozialismus', in *Historical Social Research*, vol. 28, no. 1, 2003, pp. 10-30.
- Popper, K. R., 'Die Logik der Sozialwissenschaften', in *Kölner Zeitschrift für Soziologie und Sozial-Psychologie*, vol. 14, 1962, pp. 233-48.

- Posner, R. A., *The economics of justice*, Harvard University Press, Cambridge MA, 1983.
- Priddat, B., *Der ethische Ton der Allokation: Elemente der aristotelischen Ethik und Politik in der deutschen Nationalökonomie des 19. Jahrhunderts*, Nomos, Baden-Baden, 1991.
- Proctor, R. N., *Value-free science? Purity and power in modern knowledge*, Harvard University Press, Cambridge MA, 1991.
- Pryor, F. L., *Property and industrial organization in communist and capitalist nations*, Indiana University Press, Bloomington, 1973.
- Puffendorf, S., *Of the law of nature and nations*, translation B. Kennet, 3rd ed., R. Sare, London, 1717, originally: *De iure naturae et gentium*, Lund, 1672.
- Pulte, H., *Das Prinzip der kleinsten Wirkung und die Kraftkonzeptionen der rationalen Mechanik*, Steiner, Stuttgart, 1989.
- Ramstad, Y., 'Institutional existentialism: More on why John R. Commons has so few followers', in *Journal of Economic Issues*, vol. 21, no. 2, 1987, pp. 661-71.
- Rawls, J., *A theory of justice*, Harvard University Press, Cambridge MA, 2005, reprint of 1st ed. 1971.
- Rawls, J., 'Distributive Justice', in E. S. Phelps (ed.), *Economic Justice*, Penguin, New York, 1973, pp. 319-62.
- Ribhegge, H., *Sozialpolitik*, Vahlen, Munich, 2004.
- Rinderspacher, J. P., 'Mit der Zeit arbeiten. Über einige grundlegende Zusammenhänge von Zeit und Ökonomie', in R. Wendorff (ed.), *Im Netz der Zeit*, Hirzel, Stuttgart, 1989, pp. 91-104.
- Robbins, L., *An essay on the nature and significance of economic science*, 2nd ed., Macmillan, London, 1949, first published 1932.
- Rogall, H., *Volkswirtschaftslehre für Sozialwissenschaftler: Eine Einführung*, Verlag für Sozialwissenschaften, Wiesbaden, 2006.
- Roover, R. de, 'The concept of the just price: Theory and economic policy', in *The Journal of Economic History*, vol. 18, no. 4, 1958, pp. 418-34.
- Roßbach, H., 'Tarifrunden 2011: Ein teures Jahr für Arbeitgeber', in *Frankfurter Allgemeine Zeitung*, 20 January 2011, retrieved 23 February 2012, <<http://www.faz.net/s/Rub4D8A76D29ABA43699D9E59C0413A582C/Doc~E1701DC754D41410BBC4DD03503B2234B~ATpl~Ecommon~Scontent.html>>.
- Röpke, W., *Die Gesellschaftskrisis der Gegenwart*, 5th ed., Rentsch, Zürich, 1948.

- Röpke, W., 'Wirtschaft und Moral', in A. Rüstow (ed.), *Was wichtiger ist als Wirtschaft: Vorträge auf der fünfzehnten Tagung der Aktionsgemeinschaft Soziale Marktwirtschaft am 29. Juni 1960 in Bad Godesberg*, Hoch, Ludwigsburg, 1960.
- Sahlins, M., *Stone age economics*, Tavistock, London, 1981, reprint of 1st ed. 1974, p. 13.
- Salin, E., *Civitas Dei*, Mohr Siebeck, Tübingen, 1926.
- Salin, E., *Politische Ökonomie: Geschichte der wirtschaftspolitischen Ideen von Platon bis zur Gegenwart*, 5th ed., Mohr Siebeck, Tübingen et al., 1967.
- Samuelson, P. A., 'Consumption theory in terms of revealed preferences', in *Economica*, New series, vol. 15, no. 60, 1948, pp. 243-53.
- Samuelson, P. A., 'Evaluation of real national income', in *Oxford Economic Papers*, new series, vol. 2, no. 1, 1950, pp. 1-29.
- Samuelson, P. A., *Foundations of economic analysis*, 5th ed., Harvard University Press, Cambridge MA et al., 1983, first published in 1947.
- Say, J. B., *A treatise on political economy; or the production, distribution, and consumption of wealth*, Wells & Lilly, Boston, 1824, originally published in French 1803.
- Schefold, B., 'Aristoteles: Der Klassiker des antiken Wirtschaftsdenkens', in *Aristoteles und seine "Politik" – Vademecum zu einem Klassiker des antiken Wirtschaftsdenkens*, Wirtschaft und Finanzen, Düsseldorf, 1992, pp. 19-69.
- Schefold, B., 'Werner Sombart: Verstehende Nationalökonomie', in *Die Zeit*, 23 April 1993, p. 30.
- Schefold, B., 'Antonio Serra: der Stifter der Wirtschaftslehre?', in *Vademecum zu einem unbekannten Klassiker; Commentary of Antonio Serra: Breve trattato delle cause, che possono far abbondare li regni d'oro, & argento*, Wirtschaft und Finanzen, Düsseldorf, 1994, pp. 5-27.
- Schefold, B., *Wirtschaftsstile – Band 1: Studien zum Verhältnis von Ökonomie und Kultur*, Fischer, Frankfurt am Main, 1994.
- Schefold, B., 'Grundzüge und Hauptautoren merkantilistischer Theorie', in *Zeitschrift für Agrargeschichte und Agrarsoziologie*, vol. 45, no. 2, 1997, pp. 163-80.
- Schefold, B., 'Justis "Grundsätze der Policey-Wissenschaft": Glückseligkeit und Wirtschaftspolitik', in B. Schefold, *Beiträge zur ökonomischen Dogmengeschichte*, ed. by V. Caspari, Wirtschaft und Finanzen, Düsseldorf, 2004, pp. 251-60.
- Schefold, B., 'Leonhard Lessius: Von der praktischen Tugend der Gerechtigkeit zur Wirtschaftstheorie', in B. Schefold, *Beiträge zur ökonomischen Dogmengeschichte*, ed. by V. Caspari, Wirtschaft und Finanzen, Düsseldorf, 2004, pp. 127-57.

- Schefold, B., 'Max Webers "Protestantische Ethik" als Hinterfragung der Ökonomie', in B. Schefold, *Beiträge zur ökonomischen Dogmengeschichte*, ed. by V. Caspari, Wirtschaft und Finanzen, Düsseldorf, 2004, pp. 447-64.
- Schefold, B., 'Production function in the light of the Cambridge critique', in *Journal of Macroeconomics*, vol. 30, 2008, pp. 783-97.
- Schefold, B., 'Geschichte der Wirtschaftstheorie und Wirtschaftsgeschichte: Einleitung', in *Jahrbuch für Wirtschaftsgeschichte*, no. 1, 2009, pp. 9-25.
- Schefold, B., 'A contribution to Weber's theory of modern capitalism. Amortization according to Sraffa as a rational substitution of missing markets', in N. Salvadori & C. Gehrke (ed.), *Keynes, Sraffa, and the criticism of neoclassical theory: Essays in honour of Heinz Kurz*, Routledge, London, 2011, pp. 179-97.
- Schefold, B., *Lecture notes for the introductory economics course at the Goethe University Frankfurt*, retrieved 23 February 2012, <<http://www.wiwi.uni-frankfurt.de/profs/schefold/>>.
- Schefold, B. & K. Carstensen, 'Die klassische politische Ökonomie', in O. Issing (ed.), *Geschichte der Nationalökonomie*, Vahlen, Munich, 2002, pp. 67-92.
- Schellschmidt, H., *Ökonomische Institutionenanalyse und Sozialpolitik: Gustav Schmoller und John R. Commons als Vertreter einer sozialreformerisch ausgerichteten Institutionenökonomie*, Metropolis, Marburg, 1997.
- Schinzinger, F., 'Vorläufer der Nationalökonomie', in O. Issing (ed.), *Geschichte der Nationalökonomie*, 4th ed., Vahlen, Munich, 2002, pp. 15-35.
- Schmidt, K.-H., 'Merkantilismus, Kameralismus, Physiokratie', in O. Issing (ed.), *Geschichte der Nationalökonomie*, 4th ed., Vahlen, Munich, 2002, pp. 37-66.
- Schmoller, G., 'Die Arbeiterfrage 1', in *Preußische Jahrbücher*, vol. 14, 1864, pp. 393-424.
- Schmoller, G., 'The idea of justice in political economy', in *The annals of the American academy of political and social science*, vol. 4, no. 1, 1894, pp. 697-737.
- Schmoller, G., *Über einige Grundfragen der Socialpolitik und der Volkswirtschaftslehre*, Duncker & Humblot, Leipzig, 1898.
- Schneider, R., *Vom Klosterhaushalt zum Stadt- und Staatshaushalt: Der zisterziensische Beitrag*, Hiersemann, Stuttgart, 1994.
- Schnell, R., P. Hill & E. Esser, *Methoden der empirischen Sozialforschung*, 9th ed., Oldenbourg, Munich, 2011.
- Schott, M., *Welttag der sozialen Gerechtigkeit: Die Schuldenbremse wird zum Gaspedal für mehr soziale Ungerechtigkeit*, press release 18 February 2011, retrieved 23 February 2012,

- <<http://www.linksfraktion-hessen.de/cms/abgeordnete/die-abgeordneten/marjana-schott/pressemitteilungen/2107-welttag-der-sozialen-gerechtigkeit-die-schuldenbremse-wird-zum-gaspedal-fuer-mehr-soziale-ungerechtigkeit.html>>.
- Schumann, J. et al., *Grundzüge der mikroökonomischen Theorie*, 8th ed., Springer, Berlin et al., 2007.
- Schumpeter, J. A., *Theorie der wirtschaftlichen Entwicklung: Eine Untersuchung über Unternehmerrgewinn, Kapital, Kredit, Zins und den Konjunkturzyklus*, 3rd ed., Duncker & Humblot, Munich et al., 1931, first published 1912.
- Schumpeter, J. A., *Kapitalismus, Sozialismus und Demokratie*, 7th ed., Francke, Tübingen, 1993.
- Schwalbe, U., 'Léon Walras', in H. D. Kurz (ed.), *Klassiker des ökonomischen Denkens*, vol. 1, C. H. Beck, Munich, 2008, pp. 242-66.
- Schweber, S., 'The genesis of natural selection-1838: Some further insights', in *BioScience*, vol. 28, no. 5, 1978, pp. 321-6.
- Screpanti, E. & S. Zamagni, *An outline of the history of economic thought*, Clarendon Press, Oxford, 1993.
- Second Vatican Council, *Gaudium et spes*, Vatican, 1965.
- Sen, A., *Inequality reexamined*, Sage, New York, 1992.
- Sen, A., *On ethics and economics*, Oxford University Press, New Delhi, 2008, first published Oxford 1987.
- Sen, A., 'Rational behaviour', in *The new Palgrave dictionary of economics*, ed. by S. N. Durlauf & L. E. Blume, Macmillan, Basingstoke, 2008, retrieved 23 February 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_R000022>.
- Sen, A., 'Introduction', in A. Smith, *The theory of moral sentiments*, ed. by R. P. Hanley, Penguin, London, 2009, first published 1759, pp. vii-xxvi.
- Sen, A., *The idea of justice*, Penguin, London, 2010.
- Senft, G., 'Auf der Suche nach der "Natürlichen Ordnung": Der Gerechtigkeitsgehalt im wirtschaftlichen Leitbild Silvio Gesells', in H. G. Nutzinger (ed.), *Gerechtigkeit in der Wirtschaft: Quadratur des Kreises?*, Metropolis, Marburg, 2006, pp. 51-85.
- Sewall, H. R., *The theory of value before Adam Smith*, Kelley, New York, 1968, first published in 1901.
- Shubik, M., 'On concepts of efficiency', in *Policy sciences*, no. 9:2, 1978, pp. 121-6.
- Sik, O., *Wirtschaftssysteme: Vergleiche, Theorie, Kritik*, Springer, Berlin, 1987.

- Sillitoe, P., 'Why spheres of exchange?', in *Ethnology*, vol. 45, no. 1, 2006, pp. 1-23.
- Simon, H. A., *Models of man*, Wiley, New York, 1957.
- Simon, H. A., 'Rationality as process and as product of thought', in: *American Economic Review*, vol. 68, no. 2, 1978, pp. 1-16.
- Simon, T., *Gute Policey: Ordnungsleitbilder und Zielvorstellungen politischen Handelns in der Frühen Neuzeit*, Klostermann, Frankfurt am Main, 2004.
- Smith, A., *An inquiry into the nature and causes of the wealth of nations*, ed. by E. Cannan, Random House, New York, 1994, first published 1776.
- Smith, A., *The theory of moral sentiments*, ed. by R. P. Hanley, Penguin, London, 2009, first published 1759.
- Sohmen, E., *Allokationstheorie und Wirtschaftspolitik*, Mohr Siebeck, Tübingen, 1976.
- Sombart, W., *Der moderne Kapitalismus I*, Duncker & Humblot, Leipzig, 1902.
- Spiegel, H. W., *The growth of economic thought*, 3rd ed., Prentice Hall, New Jersey, 1971.
- Stemmer, P., *Normativität: Eine ontologische Untersuchung*, de Gruyter, Berlin, 2008.
- Stigler, G. J., 'Economics: The imperial science?', in *Scandinavian Journal of Economics*, vol. 86, no. 3, 1984, pp. 301-13.
- Streissler, E., 'Kritik des neoklassischen Gleichgewichtsansatzes als Rechtfertigung marktwirtschaftlicher Ordnungen', in E. Streissler (ed.), *Zur Theorie marktwirtschaftlicher Ordnungen*, Mohr Siebeck, Tübingen, 1980, pp. 38-69.
- Taylor, O. H., 'Economics and the idea of natural laws', in *The Quarterly Journal of Economics*, vol. 44, no. 1, 1929, pp. 1-39.
- 'Thermodynamics', in *Encyclopædia Britannica*, retrieved: 23 February 2012, <<http://www.britannica.com/EBchecked/topic/591572/thermodynamics/258544/The-second-law-of-thermodynamics>>.
- Thieme, H. J., 'Wirtschaftssysteme', in *Vahlens Kompendium der Wirtschaftstheorie und Wirtschaftspolitik*, 8th ed., Vahlen, Munich, 2003, pp. 1-52.
- Thomas Aquinas, *Summa Theologica*, translation Fathers of the English Dominican Province, vol. 3, Benzinger Brothers, New York, 1948, originally: 1265-1273 AD.
- Thomas Aquinas, *Ethicorum*, documenta catholica omnia, Rome, 1998.
- Trapp, M., *Adam Smith: Philosophie und politische Ökonomie*, Vandenhoeck & Ruprecht, Göttingen, 1987.

- Trude, P., *Der Begriff der Gerechtigkeit in der aristotelischen Rechts- und Staatsphilosophie*, de Gruyter, Berlin, 1955.
- Ulrich, P., *Der entzauberte Markt*, Herder, Freiburg, 2002.
- Ulrich, P., *Integrative Wirtschaftsethik: Grundlagen einer lebensdienlichen Ökonomie*, 4th ed., Haupt, Bern et al., 2008, first published 1997.
- United Nations Development Programme, *Human development report 1999*, New York, 1999.
- Vanberg, V., 'The rationality postulate in economics: its ambiguity, its deficiency and its evolutionary alternative', in: *Journal of Economic Methodology*, vol. 11, no. 1, 2004, pp. 1-29.
- Varian, H. R., 'Distributive justice, welfare economics, and the theory of fairness', in *Philosophy and Public Affairs*, vol. 4, no. 3, 1975, pp. 223-47.
- Varian, H. R., *Intermediate microeconomics: A modern approach*, 6th ed., EWP, New Delhi, 2003.
- Vickrey, W. S., 'An exchange of questions between economics and philosophy', in E. Phelps (ed.), *Economic justice*, Penguin, New York, 1973, pp. 35-60.
- Voltaire, *Letter to Frederick II of Prussia*, 06 April 1767, as cited in H. D. Kurz & N. Salvadori, 'On critics and protective belts', in H. D. Kurz & N. Salvadori (ed.), *Understanding 'classical' economics: Studies in long-period theory*, Routledge, London, 1997.
- Walras, L., *Elements of pure economics or the theory of social wealth*, translation W. Jaffé, A. M. Kelley, New Jersey, 1977, first published 1874.
- Walras, L., 'Économie et Mécanique', in P. Dockès et al. (ed.), *Mélanges d'économie politique et sociale – Auguste et Léon Walras œuvres économiques complètes*, Économica, Paris, 1987, originally published in 1909, pp. 330-41.
- Weber, M., 'Vorbemerkung', in *Gesammelte Aufsätze zur Religionssoziologie*, Mohr Siebeck, Tübingen, 1920, pp. 1-16.
- Weber, M., *Wirtschaft und Gesellschaft: Grundriß der verstehenden Soziologie*, 5th ed., Mohr Siebeck, Tübingen, 1972.
- Weber, M., 'Der Sinn der "Wertfreiheit" der soziologischen und ökonomischen Wissenschaften', in M. Weber, *Gesammelte Aufsätze zur Wissenschaftslehre*, Mohr Siebeck, Tübingen, 1985, first published 1917, pp. 489-540.
- Weber, M., 'Zwischenbetrachtung: Theorie der Stufen und Richtungen religiöser Welt-ablehnung', in *Gesammelte Aufsätze zur Religionssoziologie*, Zweitausendeins, Frankfurt am Main, 2006, first published in 1920, pp. 533-61.

- Weber, M., *Die protestantische Ethik und der Geist des Kapitalismus*, ed. by D. Kaesler, 3rd ed., C. H. Beck, Munich, 2010, first published 1904/05 as essays and 1920 as a monograph.
- Weisskopf, W. A., 'The method is the ideology: From a Newtonian to a Heisenbergian paradigm in economics', in *Journal of Economics Issues*, vol. 13, no. 4, 1979, pp. 869-84.
- Whately, R., *Introduction to political economy*, lecture IX: delivered at Oxford, B. Fellows, London, 1832.
- Wible, J. R., *Economics, Christianity, and creative evolution: Peirce, Newcomb, and Ely and the issues surrounding the creation of the American Economic Association in the 1880s*, Durham, 2009, retrieved 23 February 2012, <<http://www.cspeirce.com/menu/library/aboutcsp/wible/createvol.pdf>>.
- Wieser, F. von, 'Grenznutzen', in F. von Wieser, *Gesammelte Abhandlungen*, ed. by F. A. Hayek, Mohr Siebeck, Tübingen, 1929, pp. 88-109.
- Will, G. A., *Versuch über die Physiokratie, deren Geschichte, Literatur, Inhalt und Wert*, Raspe, Nuremberg, 1782.
- Wilson, G. W., 'The economics of the just price', in *History of Political Economy*, vol. 7, no. 1, 1975, pp. 56-74.
- Witt, U., 'Evolutionary economics', in S. N. Durlauf & L. E. Blume (ed.), *The new Palgrave dictionary of economics*, 2nd ed., Macmillan, Basingstoke, 2008, retrieved 28 March 2012, <http://www.dictionaryofeconomics.com/article?id=pde2008_E000295&edition=current&q=Evolutionary%20economics&topicid=&result_number=1>.
- Wörsdörfer, M., *Die normativen und wirtschaftsethischen Grundlagen des Ordoliberalismus*, doctoral dissertation, University of Frankfurt, 2011.
- Wright, G. H. von, 'Explanation and understanding of action', in *Philosophical papers of Georg Henrik von Wright, vol. 1: Practical reason*, Blackwell, Oxford, 1983, pp. 53-66.

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